The Journal of Social, Political and Economic Studies

Summer, 2004 Vol. 29, No. 2

BMD – Fact & Fiction
Eugene Fox and Stanley Orman

The Rise and Fall of Brilliant Pebbles
Donald R. Baucom

The Kurdish Demand for Statehood and the Future of Iraq
Hadi Elis

Russia as a Superpower
Seymour W. Itzkoff

Uncontrolled Immigration and the U.S. Health Care System
Alison Green and Jack Martin

A New Perspective on Race
Thomas Jackson

Book Reviews

The Council for Social and Economic Studies

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Journal of Social, Political and Economic Studies is a refereed journal published quarterly by The Council for Social and Economic Studies. Subscriptions, manuscripts for submission to the editorial board, and all correspondence should be addressed to:

The General Editor,
P.O. Box 34070, N.W.
Washington D.C., 20043, USA.

Telephone (202) 371-2700
Fax (202) 371-1523
E-mail SOCECON@AOL.COM

Formerly known as *The Journal of Social and Political Affairs*, the subscription rate is $94.00 per annum for libraries and institutions, $45.00 p.a. for faculty members, students and other private individuals. Reduced three-year subscriptions are available at a cost of $280.00 for libraries. For mailing addresses outside the USA please add $12.00 per annum. Mastercard/Visa accepted.

The attention of readers is also drawn to the valuable Monograph Series (ISSN 0895-724X) published in association with the Journal. Members of the academic community and other qualified individuals are invited to consult the General Editor at the above address concerning articles which they may wish to submit for possible publication.

ISSN 0193-5941

Copyright © 2004 by The Council for Social & Economic Studies

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Journal of Social, Political and Economic Studies

Summer, 2004 Vol. 29, No. 2

BMD – Fact & Fiction
Eugene Fox and Stanley Orman

The Rise and Fall of Brilliant Pebbles
Donald R. Baucom

The Kurdish Demand for Statehood and the Future of Iraq
Hadi Elis

Russia as a Superpower
Seymour W. Itzkoff

Uncontrolled Immigration and the U.S. Health Care System
Alison Green and Jack Martin

A New Perspective on Race
Thomas Jackson

Book Reviews

The Council for Social and Economic Studies

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Journal of Social, Political and Economic Studies is a refereed journal published quarterly by The Council for Social and Economic Studies. Subscriptions, manuscripts for submission to the editorial board, and all correspondence should be addressed to:

The General Editor,
P.O. Box 34070, N.W.
Washington D.C., 20043, USA.

Telephone (202) 371-2700
Fax (202) 371-1523
E-mail SOCECON@AOL.COM

Formerly known as *The Journal of Social and Political Affairs*, the subscription rate is $94.00 per annum for libraries and institutions, $45.00 p.a. for faculty members, students and other private individuals. Reduced three-year subscriptions are available at a cost of $280.00 for libraries. For mailing addresses outside the USA please add $12.00 per annum. Mastercard/Visa accepted.

The attention of readers is also drawn to the valuable Monograph Series (ISSN 0895-724X) published in association with the Journal. Members of the academic community and other qualified individuals are invited to consult the General Editor at the above address concerning articles which they may wish to submit for possible publication.

ISSN 0193-5941

Copyright © 2004 by The Council for Social & Economic Studies

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Journal of SOCIAL, POLITICAL AND ECONOMIC STUDIES

Roger Pearson
General Editor
Dwight D. Murphey
Associate Editor

Summer, 2004 Vol. 29, No. 2

Contents

BMD – Fact & Fiction
Eugene Fox and Stanley Orman 131

The Rise and Fall of Brilliant Pebbles
Donald R. Baucom 143

The Kurdish Demand for Statehood
Hadi Elis 191

Russia as a Superpower
Seymour W. Itzkoff 211

Uncontrolled Immigration and the U.S. Health Care System
Alison Green and Jack Martin 225

Book Review Article: **A New Perspective on Race**
Thomas Jackson 243

Book Reviews:
Treason: Liberal Treachery from the Cold War to the War on Terrorism; Angola, Anatomy of an Oil State; Somalia: Economy without State 253

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Editorial Board

General Editor

Roger Pearson
Council for Social and Economic Studies
Washington, D.C.

Associate Editor

Dwight D. Murphey
The Wichita State University

Advisory Committee

James T. Bennett
George Mason University

Stephen R. Bowers
James Madison University

Gary Bullert
University of Seattle

F. McA. Clifford-Vaughan
University of Natal

Sam. S. Crutchfield, Jr.
Washington, D.C.

Daniel Ellegiers
University of Brussels

Robert E. Gilbert
Northeastern University, Boston

George A. Kourvetaris
Northern Illinois University

Maxwell A. Miller
Mountain Sts. Legal Foundation

Edward M. Miller
University of New Orleans

Robert C. Richardson, III
Washington, D.C.

Alan Ned Sabrosky
Rhodes College, Memphis

Joseph Wayne Smith
University of Adelaide

Robert Schuettinger
Yule University

Oleg Zinam
University of Cincinnati

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

BMD – Fact & Fiction

Eugene Fox & Stanley Orman[1]
Orman and Associates, Maryland

The Ballistic Missile Defense (BMD) program initiated by President Reagan under the name Strategic Defense Initiative has now been in development for a full 20 years. During that time the annual budget has grown from around $3B to over $9B, with well over $70B having been expended.

The Defense Secretary has stated that BMD has now become the number one priority program. In light of that statement it seems reasonable to assess the progress being made against the stated requirements for the system. In this article we review what has been accomplished, and assess the realism of achieving an effective defense against the broad range of missiles that are being developed and proliferated around the world.

The present program calls for the deployment of a ground based defense system in Alaska later this year, with improvements to the system to be incorporated periodically as technology matures.[2] We conclude that without the introduction of space-based interceptors and a far more rigorous testing program, the present program is inadequate to meet the stated requirement.

Key Words: Missile defense; Space activities; Defense policy.

Historical

From the time when warfare involved laying siege to walled castles, defensive concepts have involved defense in depth, an early clear example being the moat, the outside walls and the central living quarters of the castle, designed to enable defenders to fight in a manner that concentrated their defense on their most prized possessions.

The same basic strategy applies to missile defense. In this case defense in depth is usually termed layered defense because the objective is to intercept attacking missiles in all phases of their flight. The flight path of long and medium range Ballistic Missiles, BMs, can best be described in three separate phases. The first is the boost/ascent phase during which the missile motors fire and accelerate the missile to enable the front end to fly a pre-designated course to the target. At the end of this phase the more sophisticated designs discard one or two motor stages at or prior

[1] Address for communications: stanleyo1@comcast. net

[2] D. H. Rumsfeld, reported in *AUSA News*, Feb 2004, page 2

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to reaching altitudes above the earth's atmosphere.[3] The boost/ascent phase is followed by a mid-course phase during which the re-entry body or bodies, together with any decoys that might be deployed, fly a ballistic course as gravity slows their vertical acceleration. The final terminal phase is one in which the re-entry body containing the warhead re-enters the atmosphere and is accelerated by gravity towards the target.

Ideally a defensive system would be capable of intercepting enemy missiles of all ranges, in all phases of their flight. The importance of this layered concept can most easily be explained by considering a phase of defense that is only 50% effective. If 50% of the attacking missiles could be taken out during boost, another 50% during ascent, the same during mid-course and again in re-entry, only 6.25% of the originally launched missiles would reach their target. The overall effectiveness would be equivalent to 93.75%.

However thinning the attack early by reducing the initial numbers to one quarter at the end of the ascent phase (50% at boost & a further 50% in ascent), would enable the later two phases to be far more efficient, because of the significantly reduced number of targets to be engaged. Raising these later two phases to 75% effectiveness would give an overall interception probability of 98.4%, at which point the defense would be approaching full protection. This simple example illustrates the importance of defense in depth and why it will be essential to be capable of intercepting attacking missiles in all phases of their flight.

Cruise missiles, CMs, which closely resemble pilotless aircraft, do not fly such a predictable path as BMs, but can be programmed to fly in much the same way as an aircraft approaching its target.[4] Although CMs, known as V-1s, were the first form of missile used in the Second World War, much less attention has been given to active defenses against this form of attack. Nonetheless, if defenses against missiles of all ranges are to be constructed, CMs cannot be neglected.

Present Requirement

The longstanding requirement that has been proposed for a ballistic missile defense, BMD, is that the system must be capable of protecting

[3] Cruise Missile Improvements Seen Challenging Air Defenses, *Aerospace Daily*, Aug 20, 2003.
[4] National Policy, *NSPD*-23, May 20, 2003.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

all 50 states, friends and allies around the world, and troops serving in crisis areas, including the forces of allies participating in multinational operations. A further requirement, added by the present Administration, takes account of the need for defense in depth by calling for the capability of intercepting enemy missiles of all ranges in all phases of their flight.

The combination of these broad requirements implies, without explicitly stating, the need for some form of global defense. Only such a broadly based system could provide protection for U.S. and multinational forces wherever they are called upon to be engaged, and at the same time protect America, and its many friends and allies. The defense has to be global in nature, because in this proliferated environment there can no longer be high confidence in a foreknowledge of the location from which a missile strike might be launched, or even the likely target of the attack. The ability to mount launchers on the deck of a ship adds a further layer of complexity since it will then be possible to mount an attack from anywhere on the high seas. In such a scenario there would be no certainty of the country of origin. It is possibilities such as these that illustrate the need for a comprehensive defense, since deterrence hardly applies when there is uncertainty regarding the identity of the attacker.

Present Position

The Missile Defense Agency, MDA, is the organization charged with the responsibility for developing and acquiring a ballistic missile defense system. MDA has evolved from the earlier organizations SDIO and BMDO which led the research and development activities under previous administrations. MDA has been tasked with deploying the initial elements of a missile defense in Alaska by late 2004 to protect the continental U.S.A. These elements will consist initially of a large phased array radar and up to 5 interceptor missiles (to be expanded to 15 missiles) in silos, coupled of course with a battle management command and control, BMC, system.

The program to get even this limited capability system operational in the compressed timescale is extremely tight. It leaves what many consider to be insufficient time for adequate testing of the components

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and of the integrated system. For example, there have been too few tests of the interceptor missile, and none yet in its final configuration. No tests of the integration of the full system are programmed for 2004. The drive to move beyond research and development and get the elements of an initial system deployed is well understood. However the present program could be more accurately described as moving toward an advanced test bed that could be used in a crisis to intercept one or two attacking missiles, rather than a deployed BMD.

The longer-term objective is to enhance the initial system by increasing the number of interceptors, incorporating the naval systems on the Aegis cruisers, and adding advanced capabilities as they mature through a spiral development program. None of this will, however, enable the system to meet the stated requirements, unless effective boost and ascent phase interception capabilities can be introduced.

Recognizing this, MDA is initiating a program to develop a fast acceleration missile in an attempt to provide a surface-based, boost-phase interceptor. Even if this program is successful, the demanding requirements will cause this new[5] missile to be significantly larger than those currently deployed in the vertical launch system on Aegis cruisers.[6] Thus any system developed will be restricted to ground based locations in friendly countries bordering hostile nations. Such a restriction will severely limit the effectiveness of the boost/ascent phase interceptor in terms of supporting a global capability.

Another program to develop an airborne laser capable of destroying missiles in the boost/ascent phase has been ongoing for several years. Progress has been made, but an operational system is still well in the future.[7] Another alternative would be a space-based kinetic interceptor system, but MDA has indicated that the technology required to support such a concept is still too immature. However, without the addition of some form of effective boost/ascent phase interception, no BMD system can meet the stated requirements.

---

[5] http://www.senate.gov/-armed_services/statemnt/2002/March/Kadish3-7.pdf.

[6] Thomas Christie quoted in *Seattle Post-Intelligencer*, Jan 22, 2004.

[7] http://www.dod.mil/releases/2003/nr20031203-0720.html.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Discussion

For several years it has been acknowledged that a surface based BMD would be the easiest and earliest to deploy. The U.S. has more than 40 years experience of appropriate technology and engineering in such systems, and despite some opposition to the whole concept of missile defense, there is a comparative lack of political objections to surface-based systems.[8] As noted earlier, the current program calls for ground-based components deployed in Alaska, and later in the Northwestern U.S., coupled with ship-based systems on Aegis cruisers to provide the starting point for a defense capability. These surface-based systems will inevitably provide the backbone of any defense for some time to come.

There are, however, some serious drawbacks associated with the present programs that are likely to prevent them from meeting the stated requirements.[9] The production of a defense capable of satisfying the broad objectives outlined earlier will have to comprise a system of systems. The development of such a capability necessitates an overview of the form and nature of the final entity to ensure that components and sub-systems will be grown in the right time and format to be incorporated effectively. In simple terms there has to be a top-down concept into which the bottom-up development program feeds. MDA has attempted to avoid the restrictions of such an approach by reverting solely to a bottom-up view. Their spiral development will enable block upgrades to be made at intervals. But without an overarching architecture into which the improvements will be added, there is no clear path to guide the technology development.[10]

As an example of this deficiency it would be prohibitively expensive, if not impossible, to provide continuous coverage on an almost global basis without space-basing of some interceptors.[11] Add to this the requirement of being capable of intercepting offensive missiles during their boost and ascent phases, regardless of their launch location, and the need for space-based interceptors becomes overwhelming.

---

[8] Countermeasures, Union of Concerned Scientists Report, April 2000.

[9] K. S. McMahon, S. Orman and R. Spiers, *Defense News* June 19, 2000.

[10] *Space News* Jan 19, 2004.

[11] American Physical Society Report, Boost Phase Intercept Systems for NMD, July 2003.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Another example is, of course, the absence of any defense against CM attack. The requirements for the defense clearly state the need to intercept all missiles of all ranges, and CMs certainly fall into this category. In this case the omission cannot be attributed to MDA, an organization that has not been given the CM mission; but it still represents a glaring deficiency that a proper top-down view would highlight.

Returning now to the MDA mission to intercept BMs, it was explained earlier that boost and ascent phase interception is an effective way to meet the layered defense requirement by thinning an attack in its initial stages of flight. It then becomes much easier for the later mid-course and terminal phases to deal with the reduced numbers of missiles that evade the first layer of the defense.[12] Boost-phase interception is particularly attractive because the plume of burning gas creates a highly visible infra-red target for the interceptor.[13] The attacking missile, although accelerating, is moving relatively slowly; and if successfully intercepted the debris created is more likely to fall on the country of launch, an important issue for missiles carrying warheads of mass destruction. Another major advantage of boost/ascent phase interception is that enemy missiles will be engaged before they can deploy countermeasures or sub-munitions. Much has been written about how easy it would be to defeat any BMD by the use of such systems. Although supporters of BMD do not agree that effective countermeasures can be incorporated as easily as detractors suggest, the capability of intercepting missiles before they could deploy such countermeasures would undoubtedly be helpful in securing an effective defense.[14]

[15]These attractive features of boost/ascent phase interception are offset by the difficulty of achieving an interception without either laser, or space based kinetic, interceptors. Despite significant investment, the use of an airborne laser is still at least a decade away and the space-based laser capability is even more futuristic. However, space-based hit –

---

[12] *Aerospace Daily*, Nov 13, 2003.

[13] Reuters reporting on FY '05 budget, Feb 2, 2004.

[14] Clementine on the moon:
http://www.acq.osd.mil/bmdo/bmdolink/html/clemfact.html.

[15] M. A. Taverna and A. Nativi, *Aviation Week & Space Technology*, Nov 17, 2003, p. 28.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to-kill interceptors could be developed well within a decade; yet they do not figure in MDA planning. The problem seems to be more associated with policy and politics rather than technology. The mere mention of the deployment of any sort weapon in space is certain to produce strong opposition around the world, opposition that no government yet seems willing to face.

We suggest that it is this assumed reaction to the introduction of space-based interceptors that has forced MDA to invest in the surface-based, boost-phase interceptor route when even the American Physical Society, a traditional opponent to missile defense, acknowledges that an effective BMD would have to incorporate a space-based element. Admittedly the APS report then went on to make a series of assumptions regarding the space-based system, and concluded it would be exorbitantly expensive and of doubtful capability; but, nonetheless, the report identified it as the only effective means of achieving boost/ascent phase interceptions on a global scale, in the foreseeable future.

MDA appear to have attempted to avoid the controversy by stating that the technology needed to support space-based interceptors is insufficient to justify an early demonstration of such a capability. Only $14 million have been provided in the FY 04 budget for technology efforts in this area. A further $47M has been requested in the FY '05 budget awaiting Congressional approval, but these sums do not indicate any high priority being given to this topic, particularly since the earlier approved sum has not yet been allocated. Nonetheless, if the APS is correct that the only way to meet the full capability of a BMD is through the incorporation of space-based interceptors, then it seems strange that MDA is not taking rapid steps to initiate the necessary development work.

A more realistic assessment of the MDA position is that the organization recognizes it already faces considerable difficulty in terms of both time and cost in meeting the requirement to deploy the surface-based systems. MDA therefore has little motivation to take on a new underfunded effort, which is also likely to bring with it major political and policy problems.

In terms of the technology required for a space-based kinetic energy interceptor system, several of the subsystems that would be needed, such

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

as sensors, small rocket motors, command and communications, have been demonstrated in associated programs, such as Brilliant Pebbles, and Clementine. MDA would therefore have been more accurate to note that the system-engineering necessary to incorporate these subsystems into a miniaturized space-based interceptor still remains to be accomplished, rather than claiming the technology is lacking.

In reality there is certainly enough technology available to enable a start to be made now on a Demonstration/Test Bed concept, in which a limited number of non-optimally designed interceptors could be flown to demonstrate the feasibility of space-based kinetic interceptors. Such an experimental system would simultaneously provide a limited capability that could be used in a crisis. This space-based Demonstrator/Test Bed would be a space equivalent to the initial ground-based system currently being readied for deployment in Alaska. Like the ground system, the space-based element could be enhanced through a cycle of upgrades, as miniaturized components became available for incorporation. The objective of the spiral development would be to reduce the size and weight of the interceptor while enhancing its performance, thereby demonstrating the APS assumptions to be overly pessimistic.

The ongoing search for some form of missile defense was given significant momentum by President Reagan's SDI address in March 1983. At that time the objective was to try to make offensive missiles obsolete by designing such an effective defense that missiles could no longer constitute a threat to national security. The research since then has demonstrated that systems could be designed to intercept the limited-sized raids that nations which have recently acquired proliferated capabilities might threaten. However the ability to defend against the massive attacks that the former two superpowers were capable of launching is still well beyond feasibility.

In some ways this limiting capability of any missile defense that could be deployed within the next decade is an advantage, since it enables the United States to claim justifiably that any defense deployed will only protect against potential enemies other than the major nuclear powers that sit as permanent members of the Security Council. This is a polite way of saying the system is not designed to counter Russia or China, and therefore would not provide a valid reason for either of them

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

to claim a new arms race is being initiated.[16] This transparency was a factor in enabling the US withdrawal in 2002 from the 1972 Anti-Ballistic Missile Treaty, ABMT, with Russia. This withdrawal was widely predicted to initiate a myriad of security uncertainties, but in fact has passed without problem. For some reason the lack of any strong reaction to withdrawal from the ABMT has not encouraged supporters of BMD to press forward with the start of a space-based element.

International issues will be perceived as a barrier to any major changes in the currently designed surface-based BMD, particularly now that a number of nations seem poised to join the U.S. in missile defense activities. For two decades the United States has tried to induce allies to participate, but with few exceptions these approaches have not led to significant investments. The notable exceptions have been a series of NATO and individual European and Japanese national studies, the involvement of Germany and Italy in MEADS, and the investment of Spain, Germany and the Netherlands in new Frigates in which an option kept open the ability to incorporate BMD systems that have been under development for the U.S. Navy.

It was only in November 2003 that the European procurement agency OCCAR awarded Eurosam, a joint venture of MBDA and Thales, a 3-billion euro ($3.5-billion) Phase 3 contract for full-scale development and production of SAMP/T Block 1. This had been in negotiation for over three years.

It has been claimed that the award of this contract will close the gap between Europe and the U.S in missile defense activities. Nothing could be further from the truth. The system being developed might have an equivalent performance to Patriot Pac3 that entered service in 2000, as the terminal defense layer. The SAMP/T system will not be available until 2007 at the earliest, and there are no firm plans to reinforce the capabilities with a system that would provide more than point defense capabilities.

If the requirements for population defense are to be met on a global scale, a layered defense incorporating interceptors capable of destroying attacking missiles at all stages of their flight is, as we have seen,

[16] R. Lehrer, MDA Spokesperson, quoted by Reuters, Jan 23, 2004.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

essential. Despite this irrefutable fact, the strongest opposition to the introduction of space-based interceptors is likely to come from Europe. The irony is that America, being more geographically distant from potential adversaries, is less likely than some of its European allies to be attacked before it will be able to deploy a ground-based system providing some capability for population defense. Thus the envisaged European opposition to the required layered defense will have a greater adverse effect upon them than upon America.

Successive American administrations have consistently oversold the capability of any BMD that might be deployed. In so doing they are probably partly responsible for the fact that even after the passage of 21 years the worldwide opposition to the concept of missile defense has not substantially diminished. Ironically, this remains true even though the initial objective outlined by President Reagan of making nuclear weapons obsolete is still far from attainable. There is no foreseeable prospect of America feeling so secure behind a missile defense shield that the use of nuclear weapons could become an easy option. It was this fear that drove much of the opposition to BMD, and it still lingers.

This lack of total security, however, does not mean that a BMD should not be deployed and enhanced, as capabilities develop and the level of the threat grows. As proliferation proceeds, the case for a BMD grows ever stronger. America could not remain a superpower without having some protection against the ever-increasing threat of missile attack with warheads of mass destruction. These days the principal threat arises from nations already identified as hostile and from sub-national groups that are actively seeking access to these systems. Fortunately none of these hostiles is yet capable of mounting a major attack, and hence the limited capability BMD that could be deployed shortly will be adequate for the time-being.

Conclusions

The case for the deployment of a BMD grows stronger each year. But opposition to American proposals have remained, influenced by repeated overstatements concerning the capabilities of any system to be deployed. Friends and allies fear that a fortress America could emerge, able to exert undue influence on World affairs, without taking others'

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

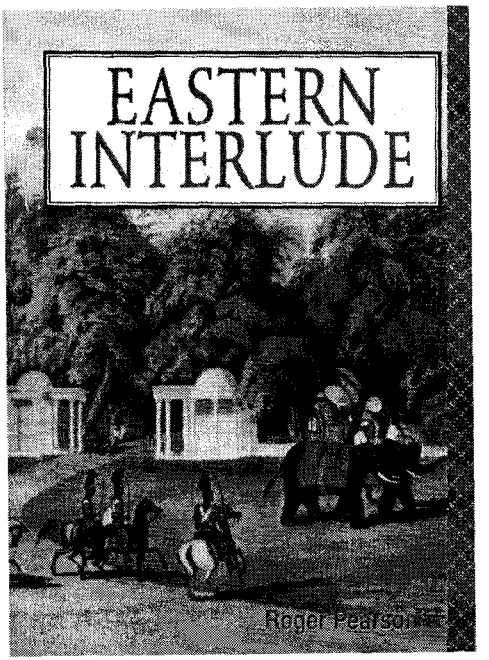
concerns into account. Hostile nations fear that the new policy of pre-emption would enable a well-defended America to intervene in their affairs with impunity.

In practice, as the analysis above has illustrated, the defense being planned will have a far more limited capability. Moreover, until more system tests are conducted there will even be doubt about the capability of the defense to intercept any hostile missiles. It is for this reason that we strongly advocate the recognition of the initial deployment to be classified as a ground-based test bed, and to be used extensively for that purpose.

There is nothing other than short-term political capital to be gained by overstating the capabilities of the system being prepared for Alaska. It provides a much-needed Test Bed, capable of being used in a crisis, and nothing more. The spiral development program will enable block upgrades to enhance this initial system, but not on the two-year cycle advocated. Such an interval is far too short to enable controlled, effective upgrades to be made to an existing military system. Even with such upgrades made on an extended timescale, the BMD will remain limited in capability until space-based interceptor elements are introduced to provide a genuine worldwide boost/ascent phase capability.

The reluctance to admit the need for space-based kinetic interceptors, coupled with the over-optimistic claims for the capabilities of the limited system that is being prepared for deployment, undermine credibility. Reluctantly, it must be acknowledged that until these changes are made we are closer to fiction than to fact.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED



Eastern Interlude:

A Social History of the European Community in Calcutta

The European empires and colonies have been much condemned in recent decades, but in general they represented a humane and courageous creation of civilized settlements by a gallant and adventurous people – often opposed by corrupt and barbarous native rulers. This is a colorful account of British life in their capital city of Calcutta, from the date of its foundation in 1689 until 1911, when the capital was moved to New Delhi.

A most diverting and readable book ... amusing and vivid: it comes to life on every page (Times Literary Supplement).

A vivid picture of European social life in India ... free from prejudices and prepossessions (Hindustan Times).

Illustrated, with maps. Paperback. 4 illustrations. 1-878465-22-8

$22.00 – plus Postage $3.50 (USA) $5.50 (foreign)
Visa and Mastercard Welcome

Scott-Townsend Publishers
socecon@aol.com
P.O. Box 34070, N.W., Washington, D.C. 20043
TEL:(202) 371-2700 FAX:(202) 371-1523

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Rise and Fall of Brilliant Pebbles[1]

Donald R. Baucom
Missile Defense Agency

The author traces the history of U.S. research into the development of a system of space-based missile interceptors known as Brilliant Pebbles (BP). Equipped with sensors, these kinetic-kill vehicles were designed to locate and collide with incoming ballistic missiles (BMs), thereby destroying them before they could reach their targets. Although the program was cancelled due to opposition in Congress, and lack of interest during the Clinton Administration, the aerospace technology developed utilized a combination of essentially off-the-shelf commercial and military technology that is still available to U.S. aerospace development.

Key Words: Brilliant Pebbles (BP); Inter-Continental Missiles (ICBMs); Strategic Defense Initiative (SDI); Anti-Satellite Systems (ASAT); DOD Advanced Research Agency; Clementine Space Mission; General George L. Monahan; Ambassador Henry Cooper; Defense Secretary Richard Cheney; Senator Sam Nunn; Lawrence Livermore Laboratory.

Introduction

In simple terms, missile defense systems consist of three basic components: sensors that detect and track missiles and missile warheads, weapons that intercept and destroy missiles and warheads, and battle management systems that integrate sensors and weapons into a coherent system. Regarding interceptors, there are two basic types: those that destroy their targets by means of an explosive warhead and those that physically collide with their targets. Interceptors of the latter type are know as hit-to-kill (HTK) interceptors or kinetic kill vehicles (KKV).

The principles behind kinetic kill vehicles were articulated as early as 1960 in Project Defender, an inventory of missile defense technologies completed by the Department of Defense's Advanced Research Projects Agency. Given the state of technology when Defender started, the accepted wisdom was that destroying an ICBM warhead required the use of a nuclear-tipped interceptor. However, as Defender proceeded, faith in the accepted wisdom eroded. A July 1960 Defender paper put the matter as follows:

[1] Paper presented at "They Taught the World to Fly:The Wright Brothers and the Age of Flight," an International Flight Symposium Sponsored by the North Carolina First Flight Centennial Commission, 23 October 2001.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

> Intuitively, one feels, that in trying to intercept anything traveling at ICBM velocities, the resultant miss distance would be large. Until recently, systems considerations have been based on the premise that miss distances would be of the order of one or two hundred feet. This dictated the use of nuclear warhead with its attendant high cost and weight, and other disadvantages. During our space based interceptor studies, consideration of light weight, 300 lb., interceptor using an IR seeker led to the conclusion that miss distances of 10 to 30 feet could be achieved. At these distances, fragment type warheads exploiting hypervelocity impact for kill appeared reasonable against tankage, motors, and other parts of the ICBM in boost. Further study indicated that a cheap effective warhead could be built weighing as little as 2 lbs.[2]

Not only did it begin to appear that lightweight interceptors armed with conventional explosives were feasible, but even hit-to-kill interceptors. In the words of the Defender paper:

> Computer simulation runs on several types of interceptors weighing about 50 lbs., and using IR homing have resulted in miss distances of one or two feet. This certainly indicates hypervelocity impact kill could be employed. Incidentally, a nose cone traveling at ICBM velocities in collision with one pound of material releases the energy equivalent of 6 pounds of TNT. In a word, the kinetic energy at that velocity exceeds the chemical energy available at that mass.[3]

Another point to emerge from Project Defender was the advantages that accrue to the defense from using space-based interceptors to attack and destroy ICBMs while they are still in their boost phase. As the 1960 Defender paper put the matter:

> A ballistic missile is more vulnerable in its propulsion or boost phase then in any subsequent part of its trajectory. At the same time, its identity is most difficult to conceal. These circumstances immediately suggest an early intercept system as an ideal solution to the defense problem. Unfortunately, enemy missiles are relatively inaccessible during this phase. So far, the only promising defense system concept has been a space based or satellite borne interceptor. Such a system requires many

---

[2]Harold N. Beveridge, "Defender Introduction," in Ballistic Missile Defense Program of the Advanced Research Projects Agency, *A Review of Project Defender for the Directorof Defense Research and Engineering, 25-29 July 1960*, Volume I, p. 17 (hereafter *Project Defender, 1960*, Vol. I).

[3]Beveridge, "Defender Introduction," pp. 17-19.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

> thousands of interceptors in space, but at a given instant only a small fraction will be in a position to attack. The economic feasibility of such systems is heavily dependent upon equipment reliability and upon enemy countermeasures.[4]

The remarks about economic feasibility should be borne in mind, as they will surface prominently later in this history of Brilliant Pebbles (BP), a space-based, kinetic kill interceptor that was part of President Ronald Reagan's Strategic Defense Initiative (SDI) program. During its brief life span, Brilliant Pebbles became the central element of the SDI program. From their orbits around the earth, BP interceptors were to be capable of destroying Soviet ICBMs during their boost phase, eliminating their multiple warheads and decoys before these could be dispersed. In this way, a single Brilliant Pebbles interceptor could destroy as many as ten Soviet warheads. This pivotal role makes the BP story crucial to the broader history of the SDI program.

The Origins of Brilliant Pebbles[5]

By the early eighties, a number of strategic analysts had begun to worry that the Soviets were about to achieve a first strike capability that would allow them to cripple U.S. strategic retaliatory forces and still retain enough nuclear weapons to destroy America's cities. This situation led the Joint Chiefs of Staff in February 1983 to recommend to President Ronald Reagan that the U.S. begin to place greater emphasis in its strategic plans on developing missile defenses.

Having come to office favorably disposed toward strategic defenses, President Reagan was highly receptive to this message. In a nationally televised speech on 23 March 1983, the president announced his decision to launch an expanded research and development program to see if strategic defenses were feasible. In April 1984, following a year of technical and strategic studies to determine how best to pursue the

---

[4]Beveridge, "Defender Introduction," pp. 8-9.

[5]For the general background in this section, see Donald R. Baucom, *The Origins of SDI: 1944-1983* (Lawrence, KA: University Press of Kansas, 1992) and "Developing a Management Structure for the Strategic Defense Initiative," Chapter 8, pp. 187-215, in Roger D. Launius, Ed., *Organizing for the Use of Space:Historical Perspectives on a Persistent Issue*, Vol. 18 in *AAS History Series* (San Diego, CA:Published for the American Astronautical Society by Univelt, Incorporated, 1995).

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

president's goal, the Strategic Defense Initiative (SDI) Organization was chartered under the leadership of its first director, Lt. Gen. James A. Abrahamson of the U.S. Air Force. This organization was to carry out the SDI program of research and development to resolve the feasibility issue.[6]

For several years before the SDI program was started, there had been considerable interest in developing directed energy weapons (DEW) as a counter to ballistic missiles. However, it was becoming apparent when SDIO was established that DEW technology was immature and that it would require far too much money to develop effective DEW weapon systems for a near-term missile defense system. As a result, the focus shifted toward the development of HTK systems as demonstrated in the June 1984 Homing Overlay Experiment (HOE) conducted by the U.S. Army and the September 1986 Delta 180 experiment carried out by SDIO.

By the winter of 1986, Secretary of Defense Caspar Weinberger and General Abrahamson had concluded that the SDI program had advanced to the point where it was time to enter a strategic defense system into the defense acquisition process. On 17 December 1986, Weinberger briefed President Reagan on an architectural concept that included a constellation of orbiting interceptors that would be able to destroy Soviet ICBMs during their boost phase, thereby destroying all the warheads and decoys aboard the missiles before they could be dispensed in space. President Reagan approved the concept; and in the summer of 1987, SDIO presented the architecture for review by the Defense Acquisition Board (DAB), which then recommended approval of the concept by the Secretary of Defense. Weinberger accepted the recommendation in September 1987.[7]

Known formally as the Strategic Defense System (SDS) Phase I

[6]Baucom, *Origins of SDI*, pp. 129-134, 192-196.

[7] Caspar W. Weinberger, *Fighting for Peace:Seven Critical Years in the Pentagon* (New York, N. Y. :Warner Books, 1990), pp. 323-24, Jack [John] Donegan to General [James A.] Abrahamson, Memorandum, 2 January 1987, with attachments. Weinberger claimed that the meeting with Reagan occurred on 19 December, a draft memorandum for Weinberger's signature attached to Donegan's memorandum indicates that the meeting occurred on 17 December. I have taken the date from the Donegan memorandum, as it is a contemporary document and Weinberger's memoir was prepared some years after the event.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Architecture, the system concept approved by Weinberger included six major acquisition programs. These were the boost surveillance and tracking system (BSTS), the space-based interceptor (SBI), the battle management/ command and control and communications system, the space-based surveillance and tracking system (SSTS), the ground-based surveillance and tracking system (GSTS), and the exoatmospheric reentry vehicle interceptor system (ground-based interceptor). When combined in accordance with the architectural concept, these elements would form a multi-tiered defense that could attack Soviet missiles and warheads throughout their flight. The operational effectiveness goal for this system was spelled out by the Joint Chiefs of Staff in a 23 June 1987 memorandum.

The space-base elements of SDS Phase I, especially the space-based interceptor (SBI), presented several problems. In addition to being inherently distasteful to elements of America's political leadership that opposed weapons in space,[8] SBI would be expensive and drive the cost of the architecture up.[9] Moreover, all space-based systems in the

[8] Fred Barnes, "White House Watch:Brilliant Pebbles," *The New Republic*, 1 April 1991, p. 11. Barnes's article deals with BP in the context of GPALS and had this to say about congressional opposition to space-based systems: "The land (and sea) parts aren't controversial. Sam Nunn, the chairman of the Senate Armed Services Committee, and other Democrats look favorably on them. It's the space part – not only Brilliant Pebbles but also sensors known as Brilliant Eyes, which guide ground-based missile defenses – that draws criticism. Why?Because if deployed, the space-based elements would violate the Anti-Ballistic Missile (ABM) Treaty of 1972."

[9] By April 1988, the costs of the Phase I system had increased from $40 to $60 billion to $75 to $100 billion. This increase had led the Strategic Forces Subcommittee of the Senate Armed Services Committee to question General Abrahamson about the causes of the cost increase when he appeared before the subcommittee on 18 April 1988. ("Abrahamson Pressed on SDI Cost," *Aerospace Daily*, 19 April 1988, p. 102, as reprinted in Office of Assistant Secretary of Defense for Public Affairs, *Current News*, 21 April 1988, p. 9.) A *Washington Times* article on 19 April claimed that the cost for the first phase of SDI could go as high as $150 billion. (Paul Bedard, "U.S. Must Decide on ABM by 1993, SDI Chief Warns," *Washington Times*, 19 April 1988, pp. A1, A4, as reprinted in Office of Assistant Secretary of Defense for Public Affairs, *Current News*, 21 April 1988, p. 6.) The *SDI Monitor* said that the cost of orbiting several hundred SBI garages, each housing ten interceptors, would be "ruinous. "Faced withcost estimates of a $115 billion for an initial strategic defense system, SDIO last year decided to shift most sensor and SBI fire control work to space surveillance and tracking satellites (SSTS). The new design cut costs by $40 billion.

Under the revamped design, battle management computers would fly on SSTS satellites. The computers would use information from SSTS sensors and six boost surveillance and tracking

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

architecture would be vulnerable to attack by anti-satellite systems (ASAT) that the Soviets might develop.

In the case of SBI, the vulnerability problem was compounded by the system's design. It was to be a large garage satellite that would berth multiple interceptors until they had to be fired at attacking missiles. This meant that a single Soviet ASAT could destroy the garage and its suite of interceptors. The solution to these difficulties emerged from the work of Dr. Lowell Wood, a physicist from Lawrence Livermore National Laboratory.

After discussing the SBI problems with other missile defense experts, Wood concluded that small, autonomous interceptors might offer a solution to the vulnerability and cost problems associated with a space-based interceptor system. He then conducted a personal inventory of applicable technologies and concluded that autonomous interceptors could be produced using technology that could be bought off-the-shelf, much of it only a little advanced over mass-produced consumer and technical professional electronics: video camcorders, scientific work stations and the like. Though this result was striking enough, it was even more astonishing to total up the likely costs: it seemed likely that a simple, small kinetic kill vehicle seeker package composed of such elements could be mass-produced for a few tens of thousands of dollars, moreover in the here-and-now.[10]

Thus, this new interceptor was to "be small, cheap and smart. Most important, it would have none of the vulnerabilities that came with big tracking satellites or groups of interceptors housed in orbiting ga-

---

satellites (BSTS) to control the space-based interceptors flying 1,000-1,500 kilometers below them.

But Monahan is uneasy with the decision to place heavy reliance on a constellation of only 18 SSTS satellites. "They become fat, juicy targets," he told reporters. "We've got a dependency [on SSTS] that I'm not wild about.: "("SDIO Takes a Hard Look at Brilliant Pebbles," *SDI Monitor*, 29 May 1988, p. 139.)

[10] For information on the origins of the Brilliant Pebbles concept, see Lowell Wood and Walter Scott, "Brilliant Pebbles," Research Completed under the auspices of the Department of Energy, Contract W-74505-eng-48, n. d. [internal evidence indicates that this paper was published after the end of January 1989 when James Abrahamson had retired from the Air Force], p. 4 (hereafter referred to as Wood and Scott, "Brilliant Pebbles"), William J. Broad, *Teller's War:The Top-Secret Story Behind the Star Wars Deception* (New York:Simon &Schuster, 1992), pp. 251-52. For the quoted material, see Wood and Scott, "Brilliant Pebbles," p. 4.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

rages."[11]

As his work continued, Wood gained entree to General Abrahamson and began briefing the General on the new interceptor concept. By the fall of 1987, Abrahamson was sufficiently impressed with the concept to visit Lawrence Livermore National Laboratory where he watched a computer simulation of Brilliant Pebbles in operation, inspected hardware Wood had assembled, and talked with laboratory personnel. Based on this trip, Abrahamson ordered a substantial increase in funding for Brilliant Pebbles.[12]

A few months later, Wood introduced the public to the new interceptor concept and coined its name. Speaking at a conference in Washington, D.C., he described a miniaturization process that would lead to the emergence of "brilliant pebbles" from existing "smart rocks" like the Army's HOE vehicle and SDIO's Delta 180 test vehicle. The new interceptor, he argued, would be designed to be brilliant, not merely smart, and to have far better than human vision, not just crude imaging systems, so that the defensive system architecture is simply the constellation of brilliant pebbles, and *nothing* else. Each pebble carries so much prior knowledge and detailed battle strategy-and-tactics, computes so swiftly and sees so well that it can perform its purely defensive mission adequately, with *no* external supervision or coaching. Complexity, durability, reliability and testability issues in such architectures thereby either simplify to readily manageable levels, or else vanish entirely.

Furthermore, Wood believed that BP interceptors might eventually be made so small (under a single gram in mass) that they would possess too little kinetic energy to assure destruction of an armored ICBM. In short, the lower limit on the size of a Brilliant Pebbles interceptor was the mass it required to be lethal when it struck its target. Certainly, Wood concluded, it was possible at that time to develop an effective Pebble that would weigh between 1.5 and 2.5 kilograms, which was

---

[11] Broad, *Teller's War*, pp. 252-53.

[12] Lowell H. Wood, "Operational Strategic Defense in the '80s:Very Near-Term Launch Capability for a Nitze-Satisfying SBKKV System," Presentation to Lt. Gen. James A. Abrahamson, in the Pentagon (Room 2E252), 24 February 1987, Ralph Kinney Bennett, "Brilliant Pebbles:Amazing New Missile Killer," *Reader's Digest*, September 1988, pp. 131-132.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

about 100 times the mass needed to assure destruction of an armored missile.[13]

To provide effective missile defenses under conditions of the worst-case attack scenario could require as many as 100,000 Pebbles in orbit. However, Wood believed a more reasonable estimate of the size of the BP constellation was about 7,000. Even taking the worst case scenario would not make Brilliant Pebbles prohibitively expensive, since Wood expected the cost of a single BP to be driven down as low as $100,000 through mass production techniques and the use of what was essentially off-shelf, commercial technology. This meant that a constellation of 100,000 interceptors would cost about $10 billion.[14] Moreover, given their small mass, it should be fairly inexpensive to orbit the entire constellation.

In its mature form, the BP concept called for the interceptors to be housed in protective cocoons or "life-jackets." These devices would provide housekeeping support (communications, power, etc.) to the Pebbles until such time as a missile attack was detected. At this time the Pebbles would be armed for combat and shed their life jackets.[15]

As Wood was developing a more definitive version of the Brilliant Pebbles concept, SDIO was conducting its own search for answers to the cost and vulnerability problems associated with the Phase I architecture. Part of this effort was the Space-Based Element Study (SBES) that began in May 1988 under the leadership of Dr. Charles Infosino.

---

[13] Lowell Wood, "Concerning Advanced Architectures for Strategic Defense," Paper Prepared for Presentation at the Conference on the Strategic Defense Initiative:The First Five Years, Washington, D. C., 13-15 March 1988, pp. 4-7. One clear advantage of small-sized interceptors was a reduction in the cost of orbiting a constellation that would have to include several thousand pebbles. Indeed, consideration was given to orbiting BP interceptors using rail guns.

[14] Wood, "Concerning Advanced Architectures for Strategic Defense," pp. 7-8. Regarding a worst-case scenario, Wood gave as an example "an instantaneous silo-dumping attack with maximum clustering of mobile launchers – the worst case imaginable. "(p. 8) In Wood and Scott, "Brilliant Pebbles," p. 8, the authors give 7,000 BPs as "a reasonable median number which fully satisfies the JCS tasking for Phase I strategic defense all by itself.: "

[15]Strategic Defense Initiative Organization, *1993 Report to the Congress on the Strategic Defense Initiative*, January 1993, p. A22, states: "Each life jacket provides on-orbit power, low-rate attitude control, surveillance, communication, thermal control, navigation, and survivability. "

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

General Abrahamson had initiated the study to help SDIO redesign the SBI, and he directed the SBES team to consider Brilliant Pebbles in its review of SBI candidates. The result was the first systematic evaluation of Brilliant Pebbles by an independent body and an endorsement of the BP concept. Based on the results of this review, Abrahamson concluded that SDIO should forge ahead with Brilliant Pebbles and perhaps even accelerate the program.[16]

While the SBES team was at work, the U.S. Air Force Space Division was conducting another review of the SBI element. The results of the Space Division review, along with information about other SBI developments, were reported to the Secretary of Defense in the fall of 1988. The Space Division report stated that work with sensors and signature data, along with trade-off studies, indicated that individual interceptors could directly engage re-entry vehicles using their own sensors, thereby eliminating the requirement for sensors on carrier vehicle satellites. Also, new data suggested that interceptor fly-out time could be doubled, while fly-out velocity could be increased twenty-five percent, resulting in greatly increased range for the SBI interceptors. The improved performance of interceptors, coupled with improvements in the ERIS ground-based interceptor, meant that the number of carrier vehicles in the SBI constellation could be reduced by over fifty percent from the original number of several hundred. These changes translated into lower projected costs for research, development, and acquisition.

[16]Charles Infosino, Discussion with Donald R. Baucom, 14 July 1993, p. 1, Strategic Defense Initiative Organization, *Final Technical and Scientific Report:16 May 1988-30 September 1988*, 14 October 1988, Executive Summary, pp. 1-2. The comment about the SBES study constituting the first systematic review of Brilliant Pebbles was made by Dr. Charles Infosino during a discussion with Ballistic Missile Defense Organization (BMDO) Historian Donald R. Baucom on 21 April 1993. Information on the origins and purposes of the study can be found inside the title page of the report on the "Report Documentation Page. "This study was completed under contract SDIO84-88-C-0019. In addition to Infosino, the following were government employees who served as members of the SBES:Dean Judd (SDIO), Fred Hellrich (Navy/NRL), Ed Wilkinson (Army/SDC), Alan Weston (Air Force/AFAL), Dwight Duston (SDIO), and David Finkleman (USSPACECOM). Employees of FCRC/National Laboratories who provided technical support were:Bob Erilane (POET/Aerospace), Troy Crites (POET/Aerospace), T. J. Trapp (LANL), Chris Cunningham (LLNL), John Dassoulas (JHU/APL), Steve Weiner (MIT/LL), and Howard Wishner (Aerospace). A team of thirteen analysts provided by four companies also supported the effort. Members of the SBES team are listed on p. 53 of their report.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

As a result, the cost of the SBI constellation dropped to $18 billion (FY 1988 constant dollars), a reduction of sixty-six percent from earlier projected costs. The Space Division report noted that the analytical work associated with both the SBES and the development of the Brilliant Pebbles concept contributed to simplifications and improvements in the SBI element.[17]

As 1988 was ending, then, SDIO's analytical and redesign work was pushing the SBI concept toward the completely autonomous mode of operation that was a hallmark of the Brilliant Pebbles concept. One could now begin to think in terms of either defending the carrier vehicle against ASATs or simply dispersing the interceptors. If one chose the latter course of action, the interceptors would remain capable of destroying ICBMs and warheads while they themselves became relatively invulnerable to ASAT attack. The progress made with the SBI concept in the year following the first DAB review was summed up by an SDIO report stating that the SBI element of October 1988 departs from the initial SBI element concept in several respects. The initial element focused on autonomous SBI CV [carrier vehicle] satellites for communications, battle management, fire control sensing, and SBI survivability. With this approach, significant complexity and cost accrue to the CV satellite and in turn limit the performance for the space-based interceptor. The current SBI element concept changes the emphasis to increasing the performance of the interceptor, with a corresponding simplification of the CV satellite.[18]

In short, SBI was rapidly evolving toward a concept very similar to Brilliant Pebbles.[19]

---

[17] Strategic Initiative Defense Organization, *Program Overview*, December 1988, p. 34, Strategic Defense Initiative Organization, "Space-Based Interceptor Status Report:A Special Report to the Secretary of Defense," 26 September 1988 (updated 5 October 1988), pp. i, 5-7, 12.

[18]SDIO, "Space-Based Interceptor Status Report," 26 September 1988 (updated 5 October 1988), p. 6.

[19]For evidence of this evolution, see *Space-Based Interceptor Status Report*, pp. ii, 5, 20-22. Page ii states: "The Livermore National Laboratory's 'Brilliant Pebbles' concept of a proliferated 'singlet' constellation has not only provided the promise of a revolutionary capability but is also acting as a catalyst for innovative improvements in other SBI programs. "See also Strategic Defense Initiation Organization, "Brilliant Pebbles," Information Paper, 9 March 1989. This paper states: "At the end of FY '88, all of the Brilliant Pebbles technologies, developed under

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Verifying the Brilliant Pebbles Concept: A Season of Studies

As 1989 began, General Abrahamson's tenure as SDIO Director was ending.[20] Yet, the design for SBI, the principal weapon system in the Phase I architecture, was still far from settled. This meant that Abrahamson's replacement, Lt. Gen. George L. Monahan, Jr., USAF, would immediately face a major architectural decision: what should be the structure of the space-based portion of the SDS Phase I system?

A few days after his retirement, Abrahamson submitted an end of tour (EOT) report that strongly endorsed Brilliant Pebbles. He was convinced that BP was the key to an effective, affordable space-based architecture and believed that BP could be operational in five years at a cost of less than $25 billion. Therefore, he recommended pushing Brilliant Pebbles aggressively. "This concept," he wrote, "should be tested within the next two years and, if aggressively pursued, could be ready for initial deployment within 5 years." Moreover, "once deployment has begun and a competitive industrial base is established, the system could be scaled to higher levels of effectiveness for ever decreasing incremental costs."[21]

This last point was important, for it said that Brilliant Pebbles could meet one of the critical requirements for deployment that were delineated in the Nitze criteria that had been adopted under the Reagan administration to determine whether or not a missile defense system,

---

SDIO funding to Lawrence Livermore National Laboratory (LLNL) with extensive industrial-sector participation, have been demonstrated. "This same information paper stated: "The Brilliant Pebble navigation system is based on a novel, already-demonstrated real-time stellar navigation module and standard miniature angular rate-sensing and linear accelerometers, backed by a high precision clock. "

[20] On 26 July 1988, General Abrahamson informed Secretary of Defense Carlucci of his intent to retire effective 31 January 1989. Abrahamson stated that "a new Administration will undoubtedly have different ideas or approaches to SDI. Therefore, I reluctantly have concluded that the program will best be served by allowing new leadership to represent new policy and direction. "Abrahamson selected the end of January 1989 as the effective date of his retirement to be sure there would be sufficient time to assure a smooth transition to the new Bush administration. James A. Abrahamson, Memorandum for Secretary of Defense, Subject: "Retirement for Active Duty – Action Memorandum," 26 July 1988.

[21] James A. Abrahamson, Memorandum for Deputy Secretary of Defense, Subject: "'End of Tour Report,' – Information Memorandum," 9 February 1989, Attachment 1, "Lt General Abrahamson's Recommendations:*SDI Breakthrough Architectures*," pp. 1-1 through 1-3.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

once developed, should be fielded. According to these criteria, any missile defense system deployed must be survivable and cost effective at the margin. The latter criterion meant essentially that it had to cost more to develop offensive countermeasures than to devise defensive responses.[22]

About three weeks before Abrahamson submitted his EOT report, President George Herbert Walker Bush had taken office. With clear signs on the horizon that the Cold War was ending, the new Bush administration immediately launched a major review of American security requirements. Included here was an examination of the structure and objectives of the SDI program with this review encompassing possible future roles for missile defense. In the emergent security environment envisioned by Bush's instructions, these roles might vary from serving as the strategically dominant weapons system to protecting against Third World missile attacks or "the accidental launch of Soviet systems."[23]

In June 1989, President Bush issued National Security Directive 14 pertaining to the SDI program. Based on the findings of his administration's reassessment of national security requirements, the President had concluded that the goals of the SDI program remained "sound" and that "research and development of advanced technologies necessary for

---

[22] Nitze presented the criteria that bear his name in a speech at Philadelphia in 1985. See Paul H. Nitze, "On the Road to a More Stable Peace: Speech to the Philadelphia World Affairs Council," 20 February 1985. For a discussion of the origins of the criteria, seePaul H. Nitze with Anna M. Smith and Steven L. Rearden, *From Hiroshima to Glasnost:At the Center of Decision* (New York:Grove Weidenfeld, 1989), pp. 406-407. For other discussions of the Nitze criteria as they related to Brilliant Pebbles, see Lowell H. Wood, "Operational Strategic Defense in the '80s:Very Near-Term Launch Capability for a Nitze-Satisfying SBKKV System," Presentation to Lt. Gen. James A. Abrahamson, in the Pentagon (Room 2E252), 24 February 1987, and George Monahan and Lowell Wood, "Brilliant Pebbles," Transcript of Press Briefing, Pentagon, 9 February 1990, pp. 10-11. Indeed, the basic idea of mass-producing cheap BP interceptors would seem to offer the ability to counter any effort on the part of the Soviet Union to overcome strategic defenses by adding more ICBMs. Wood seems to have been concerned about the Nitze criteria as early as August of 1986 when he presented a "an invited talk" at a seminar in Austria. See Lowell Wood, "The Strategic Defense Initiative and the Prospects for International Cooperation in Space," Paper Prepared as Documentation of an Invited Talk to Be Given at the 29th Seminar for Diplomats, Klessheim, Austria, 5-8 August 1986, pp. 5-6.

[23] George Bush, Memorandum for the Vice President, et. al., National Security Review 12, Subject: "Review of National Defense Strategy," 3 March 1989,pp. 2, 6-8.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

strategic defenses" should continue to be a major U.S. response to the "Soviet challenge." In this R&D effort, "particular emphasis" was to be placed on "promising concepts for effective boost-phase defenses, for example, 'Brilliant Pebbles.'" Bush also directed Secretary of Defense Richard Cheney to commission an independent review of the SDI program to see that the goals laid down in NSD-14 were carried out. This independent study was to be completed by 15 September 1989.[24] As we shall see, when this review was submitted on 15 March 1990, it contained a strong endorsement of the Brilliant Pebbles concept, which the report's author, Ambassador Henry Cooper, considered essential to the success of the SDI program.

As these presidential instructions were being formulated, General Monahan was developing his own plans to evaluate Brilliant Pebbles. By May 1989, these plans included two technical feasibility studies by outside advisers, a Red/Blue evaluation to judge how well BP would deal with Soviet countermeasures, and a "bottom up" cost estimate.[25]

---

[24] George Bush, Memorandum for the Vice President, et. al., National Security Directive 14, Subject: "ICBM Modernization and Strategic Defense Initiative," 14 June 1989, pp. 1, 3-4.

[25] Lt. Gen. George L. Monahan, Jr., to the Honorable John J. Welch, Jr., Assistant Secretary of Defense for Acquisition, Letter, 5 May 1989. See also "SDIO Takes a Hard Look at Brilliant Pebbles," *SDI Monitor*, 29 May 1989, pp. 139-140. Not included in the studies described aboveis a general assessment of the SDI technology program completed in March 1989 by the American Institute of Aeronautics and Astronautics. Although Brilliant Pebbles is mentioned only briefly in the report's section that deals with kinetic kill technologies, this reference to BP comes in the context of a report that endorsed the SDI technology program. "No issues were identified" in the program that could not be resolved through the actions recommended in the report. Furthermore, the report said "no fundamental obstacles were found that a well-planned technology program could not surmount.: "American Institute of Aeronautics and Astronautics, *AIAA Assessment of Strategic Defense Initiative Technologies*, 15 March 1989, p. 30. For a brief description of the AIAA report, see [Strategic Defense Initiative Organization], "Strategic Defense System Space-Based Architecture Fact Paper," 9 February 1990. Wood and Scott, "Brilliant Pebbles," p. 7, stated that in warming up for the 1989 cost estimating exercise, SDI was "gathering up a half-dozen cost estimates for Brilliant Pebbles. "They also stated that they knew of eight additional studies that were underway. For another tally of the studies anticipated, see Theresa M. Foley, "Sharp Rise in Brilliant Pebbles Interceptor Funding Accompanied by New Questions about Technical Feasibility," *Aviation Week*, 22 May 1989, p. 21. Foley noted that in addition to studies by JASON and the DSB, three other studies were being conducted by Martin Marietta and Rockwell as part of their SBI contracts with the Air Force's Space Division. One of these was a reworking of the SBI architecture to reflect the results of moving the fire control responsibility from the SBI garage to the space-based sensor constellation, a move expected to reduce the cost of command and control whileincreasing the vulnerability of the space-based

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Monahan had also developed a plan for getting his acquisition strategy approved by the DAB. Central to this plan was integrating the work being done on Brilliant Pebbles with "the on-going and planned activities of other SDI elements, especially SSTS and SBI." This would be accomplished through a fifth evaluation of the space-based component of the SDI architecture that would get under way in September 1989. By this time, the other evaluations of BP were to be completed; and their results would be assimilated into the September study. Then, in the late fall, SDIO would present the results of the September evaluation for approval by the DAB. Once the DAB accepted SDIO's plans, the Air Force would execute the approved space-based program in conjunction with Lawrence Livermore National Laboratory. Monahan had hoped to win approval for this approach during an 8 May 1989 DAB review,[26] which never occurred. Nevertheless, Monahan forged ahead with his plans.

One of the technical feasibility studies was conducted by JASON, a group of America's top scientists, who worked under the aegis of MITRE Corporation and advised government agencies on defense and other technical issues. This study was conducted during June and July of 1989 and focused on the technical feasibility of BP's component technology and of the battle management command, control and communications (BMC^3) system that was to be used with BP. In the process, the JASONs examined other interceptor concepts for comparison purposes.[27]

---

architecture. A study known as Scorpion involved the SBI contractors in an examination of the costs of the singlet configuration of the interceptor constellation. Under Scorpion, Rockwell examined a constellation of singlet interceptors compared to housing ten interceptors in a garage. Martin Marietta was to compare an alternative constellation in which two or three interceptors would be clustered together with the constellation that clustered ten together. Finally, there was to be an overarching cost evaluation with which the SBI contractors would assist the Space Division. At this time, estimates of the cost of BP interceptors varied from $250,000 to $1 million per pebble.

[26] Lt. Gen. George L. Monahan, Jr., to the Honorable John J. Welch, Jr., Assistant Secretary of Defense for Acquisition, Letter, 5 May 1989.

[27] JASON (The MITRE Corporation), *JASON Review of Brilliant Pebbles*, Vol. I, *Executive Summary*, September 1989 (JSR-89-900), pp. 2-3, [Strategic Defense Initiative Organization], "Strategic Defense System Space-Based Architecture Fact Paper," 9 February 1990. Dr. O'Dean Judd, BMDO's chief scientist, played a key role in setting up the JASON review. He had

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

In the Pentagon, it is common for the leader of a major study or his surrogate to brief the sponsoring agency on the findings of that study. On 23 August 1989, Dr. John M. Cornwall, a physicist from Cornell University and leader of the JASON BP review, briefed General Monahan and key members of missile defense community. He reviewed the strong points of the BP concept, which included the proliferation of the interceptors and their autonomous operation. He also noted that the concept was based on conservative technologies that had already been developed in large measure through the work of the military services, SDIO, and Lawrence Livermore National Laboratory. The bottom line in the JASONs findings was that there were no technological "show-stoppers" or fatal flaws in the BP concept. Moreover, he continued, the Brilliant Pebbles interceptor could probably be produced using current technology, although a better BP interceptor could be produced with technologies that were just a couple of years downstream.[28]

The general points Cornwall made in his briefing were detailed in the written report filed by the JASONs on 3 October 1989. This report stated that

> research on lightweight proliferated, autonomous kinetic-kill interceptors using near-term and maturing technology deserves continuing support. It will be essential to avoid either excessive conservatism or excessive optimism in choosing which technologies to support; near-term but not off-the-shelf technologies may be mission-critical. Although there does not appear to be any obvious technological show-stopper, there are several problems which must be addressed: performance of readily-available technology; lack of hardness of commercial technology against a nuclear environment; and serious countermeasures threats.[29]

---

carefully analyzed the BP concept and was certain that it was sound. Having a prestigious body such as the JASONs reach the same findings would provide important validation for the BP concept. According to Judd, there was opposition in some quarters to having the JASONs complete the findings, since some believed that the JASONs would be biased against BP. (O'Dean Judd, "RE: Jason Statement," Email, 19 March 2001.

[28]Donald R. Baucom, "Report of the JASONS," Meeting Notes, 23 August 1989.

[29] JASON (The MITRE Corporation), *JASON Review of Brilliant Pebbles*, Vol. I, *Executive Summary*, September 1989 (JSR-89-900), pp. 2-3, [Strategic Defense Initiative Organization], "Strategic Defense System Space-Based Architecture Fact Paper," 9 February 1990. Although the date on the front of the JASON report says September 1989, the Report Documentation

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

These unanswered questions notwithstanding, BP's general concept of autonomous interceptor operation offered important advantages. As the report put this matter:

> [I]t makes sense to attempt an autonomous system, at least with no SSTS and possibly without BSTS. The extra constellation size needed (because of inefficiencies in selecting targets autonomously compared to central battle management) is likely to be less costly than the central battle manager, and, of course, avoids reliance on a small number of high-value or essential components which are hard to defend.[30]

Regarding countermeasures, the JASONs noted the difficulty of developing effective devices and suggested how SDIO should deal with this issue. In the words of the report:

> Anyone can invent countermeasures, but answering the question of which ones really work must (in most cases) await detailed studies and engineering development; those which are effective may be too costly; and there may be effective counter-countermeasures. Only a full red/blue team study with the best available people on both sides can really address these crucial issues,...

The JASONs then listed six types of countermeasures (four classified and two unclassified) that merited further study.[31]

Overlapping the JASON study was the second technical feasibility study, which was completed by the Defense Science Board (DSB), a federal advisory committee established to advise the secretary of defense on technical issues. In June 1989, the DSB was directed to establish a Brilliant Pebbles Task Force to review the BP concept. The task force met six times between June and September with the various other groups, including the JASONs, that were examining the BP concept and

---

Page that is part of the front matter of the report gives its dates as 3 October 1989. Since the JASONs had found no major flaws in the Brilliant Pebbles concept, it was important that they state this finding in the strongest possible terms. Otherwise, detractors of the SDI program would use the report to flog the program, even though the report itself was a highly favorable endorsement of BP. The expression "no-show stoppers" was meant to be a categorical endorsement of Brilliant Pebbles that could not be misconstrued by the press. (O'Dean Judd to Donald Baucom, Subject: "Several," Email, 19 March 2001, 10:45 a. m., O'Dean Judd to Donald Baucom, Subject: "Jason Statement," Email, 19 March 2001, 6:45 p. m.)

[30] JASON, *Review of Brilliant Pebbles*, p. 4.

[31] JASON, *Review of Brilliant Pebbles*, pp. 10-12.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

completed its report at the end of December 1989. Like the JASONs, the DSB concluded that BP faced some technical problems that would have to be overcome, but found no fundamental flaws with the concept. The DSB report noted that the design of BP had thus far been examined by a number of competent and independent groups. While these examinations had pointed to several areas for possible improvement, no fundamental flaws had been uncovered.[32]

The third evaluation of Brilliant Pebbles was a Red-Blue interactive countermeasures exercise completed in two formal phases, the first in July and August of 1989 and the second in September and October of 1989. The general conclusion of this study was that Brilliant Pebbles would be subject to the same countermeasures faced by all space-based elements in the SDI architecture, but faced no special problems in this area. The study's major recommendation was that survivability features should be built into the BP system.[33]

---

[32] Defense Science Board, *Report of the Defense Science Board on SDIO Brilliant Pebbles Space Based Interceptor Concept*, December 1989, pp. 1-2, [Strategic Defense Initiative Organization], "Strategic Defense System Space-Based Architecture Fact Paper," 9 February 1990. [p. 3]. Task force chairman, Robert R. Everett, submitted this report to the Secretary of Defense and the Deputy Secretary of Defense on 29 December 1989. (Robert R. Everett, Memorandum for Secretary of Defense and Deputy Secretary of Defense, Subject: "Final Report of the Defense Science Board on Brilliant Pebbles," 29 December 1989.)The report was marked for official use only and carried a notice inside its front cover that distribution of the report was restricted to U.S. government agencies by direction of the Secretary of Defense. This notice carried the date of 3 March 1990. Terms of reference for this DSB study had called for the BP Task Force to review and evaluate four items relative to BP and report its findings in briefing format by September 1989. The four items were: the advantages of BP compared to SBI, the soundness of the required technology, the risks and costs in developing the BP demonstration-validation design, and the validity of the demonstration-validation flight experiment program. See Donald J. Atwood, Memorandum for the Chairman, Defense Science Board, Subject: "Terms of Reference – Defense Science Board Task Force on Brilliant Pebbles," 28 August 1989.

[33] BDM Corporation, *Architecture Blue Team Analysis*, Volume II, *Brilliant Pebbles*, Scientific and Technical Report (CDRL Item #A318) for Task Order No. 48 SDS, Prepared for the Strategic Defense Initiative Organization, 20 November 1989, pp. iii, I-1, I-3, System Planning Corporation, *Red/Blue Analysis of Post-Boost Vehicle Operations Countermeasure against Brilliant Pebbles*, Volume I, *Analysis*, SPC Final Report 1335, November 1990, p. 1, [Strategic Defense Initiative Organization], "Strategic Defense System Space-Based Architecture Fact Paper," 9 February 1990. The System Planning Corporation report indicates that in addition to the two formal parts of this Red-Blue exercise, a "quick look at BP occurred in May 1989. "This exercise showed that countermeasures could be effective and needed to be addressed in more

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The fourth study was a joint cost review that SDIO and the Air Force conducted between May and December 1989. Among other things, this review compared the costs of architectures based on the older SBI concept and the new Brilliant Pebbles concept. It concluded that the cost of the Phase I SDS architecture with Brilliant Pebbles would be $55 billion, as compared with the $69 billion cost for the Phase I system with SBI.[34]

As each of these four reviews was completed, its results were assimilated into the Space Based Architectural Study (SBAS), the fifth study called for in General Monahan's May 1989 strategy. Based on its own findings and input from the other four reports, the SBAS would "evaluate the space-based elements of the Phase I Strategic Defense (SDS) architecture and determine whether the Brilliant Pebbles concept should become a part of the architecture." SBAS findings would then become the basis for Monahan's recommendations to the DAB regarding the structure of the space-based component of the SDS architecture. Monahan expected a final DAB decision by Thanksgiving 1989.[35]

The SBAS team proceeded by comparing Brilliant Pebbles with two other interceptor concepts. The team found that all three concepts were comparable when analyzed against the expected missile threat; however, based on the advantage to the defense of proliferating its space-based interceptors, the team concluded that developmental work should be continued on only two of the three systems: Brilliant Pebbles and the "Gunrack" version of the original SBI.[36]

In addition to comparing interceptor concepts, the SBAS team

---

detail. For this reason, the exercise team had recommended another round of exercises. (BDM Corporation, *Architecture Blue Team Analysis*, pp. I-13 – I-14.)Both the documents cited here are held by the BMDO Information Resource Center.

[34] [Strategic Defense Initiative Organization], "Strategic Defense System Space-Based Architecture Fact Paper," 9 February 1990.

[35]Strategic Defense Initiative Organization, "Strategic Defense System Space Based Architecture Study Report," Executive Summary, [25 October 1989], p. 1. The report is undated. However, Appendix A, Final Study Briefing, is dated 25 October 1989, Patricia A. Gilmartin, "Defense Dept. Postpones Decision on Brilliant Pebbles until November," *Aviation Week*, 14 August 1989, p. 23.

[36] SDIO, "Space Based Architecture Study," Executive Summary, pp. 1-10.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

decided to review SDS Phase I sensing requirements taking into consideration the increased sensing capabilities of new interceptors. Based on this review, the team concluded that the interceptors could engage warheads and post-boost vehicles without support from the Space-based Surveillance and Tracking System, but that some SSTS satellites would be required for surveillance purposes. As a result, the number of SSTS satellites required in an architecture that included proliferated space-based interceptors was only one-third the number approved by the DAB in October 1988. Where the Boost Surveillance and Tracking System was concerned, the study recommended that it remain a part of the Phase I architecture. While autonomous interceptors would ease the requirements levied on BSTS, neither the sensors of Brilliant Pebbles nor those associated with the Gunrack system could provide all the data made available by the BSTS. Finally, the SBAS determined that the number of Ground-based Surveillance and Tracking Systems in the architecture would have to increase by six to offset the loss of other capabilities.[37]

In addition to its analyses of the space-based components, the SBAS also compared the costs of four possible architectures: that reviewed by the DAB in October 1988 and one based on each of the three interceptors considered in the study. These cost estimates indicated that an architecture using either the Gunrack or Brilliant Pebbles would reduce the $69.1 billion cost of the October 1988 architecture by $7 billion to $13 billion. The architecture recommended by the SBAS had the following characteristics (all statements about increases or decreases in numbers of a component are relative to the October 1988 architecture):

- BSTS remained unchanged.
- SSTS reduced by two-thirds.
- Replace the earlier SBI with either the Gunrack or Brilliant Pebbles. (Development of both systems should be continued for at least awhile.)
- Several additional GSTSs would be required.
- The Ground-Based Radar and Ground-Based Interceptor would not be changed.

[37] SDIO, "Space Based Architecture Study," Executive Summary, pp. 10-20.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

- The ground communications system for the command center element would have to be enhanced.[38]

In the fall of 1989, with the results of the various studies of Brilliant Pebbles becoming known, it was apparent to Monahan that he would soon have to secure DAB approval for significant changes to the established SDS architecture. On 20 September 1989, as the Space-Based Architecture Study was nearing completion, General Monahan advised John Betti, under secretary of defense for acquisition, that he would be prepared to present the study's recommendation on the architecture to the Defense Acquisition Board during a review that was scheduled for 12 December 1989.[39]

About two weeks later, Betti agreed to this review, but set the date for 11 December. At the same time, he advised Monahan to be prepared for another DAB review in the spring of 1990, at which time SDIO would be expected to present "the Baseline for the Phase I Strategic Defense System."[40] This meant that SDIO would have only a few months to work out the details of a new architecture that would include Brilliant Pebbles.

DOD canceled the December DAB review, leaving Monahan in a difficult position. The new Brilliant Pebbles program had reached the point where it was necessary to initiate contract arrangements to start the development process. Yet, without some form of approval from DOD, Monahan could not proceed. This crisis was resolved when Dr. George Schneiter, head of the Strategic Systems Committee in Betti's office, authorized Monahan to proceed with the "next steps" in the BP acquisition strategy.[41] Over the next few months, Monahan would be

---

[38] SDIO, "Space Based Architecture Study," Executive Summary, pp. 21-25.

[39]George L. Monahan, Memorandum for Under Secretary of Defense (Acquisition), Thru:Chairman, Strategic Systems Committee, Subject: "Review of the Space Segment of the Phase I Strategic Defense System (SDS)," 20 September 1989.

[40]John Betti, Memorandum for Director, Strategic Defense Initiative Organization, Subject: "Defense Acquisition Board (DAB) Review of the Strategic Defense Initiative (SDI) Program," 3 October 1989. The DAB that was to be held in the spring of 1990 was originally scheduled for the fall of 1989.

[41] George R. Schneiter, Memorandum for the Under Secretary of Defense for Acquisition, Subject: "Strategic Defense Initiative (SDI) Program Review," 16 January 1990, George R. Schneiter, Memorandum for the Under Secretary of Defense for Acquisition, Subject: "Strategic Defense Initiative (SDI) DAB Review," 6 February 1990. In this second memo, Schneiter wrote:

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

largely on his own to manage the acquisition of Brilliant Pebbles. During this period, the BP concept was gaining momentum.

On 7 February 1990, General Monahan accompanied President George Bush to Lawrence Livermore National Laboratory (LLNL) where Lowell Wood briefed the President. It was also during this visit that Bush himself gave LLNL and the BP program a boost, lauding America's national laboratories for "developing technologies to strengthen deterrence through strategic defenses." Among the most promising of these new technologies, said the President said, was Brilliant Pebbles.[42]

"In a previous memorandum, I discussed some outstanding SDI acquisition issues. Following your direction to deal with what I could at my level, I informed the SDI Organization they should take the next steps in their recommended Brilliant Pebbles acquisition approach. "Additionally, on 16 January 1990, General Monahan discussed the SDI program with Secretary of Defense Richard Cheney, who had advised Monahan that he expected the General to proceed with the program. Monahan interpreted these instructions as meaning that a DAB was not required for approval of his acquisition strategy for Brilliant Pebbles. Furthermore, the General laid out his plan for releasing the BP concept study RFP in the *Commerce Daily Bulletin*.

[42] George L. Monahan, Jr., Interview with Donald R. Baucom, the Pentagon, Washington, D. C., 29 March 1990, p. 17, President George H. W. Bush, "Remarks by the President to National Employees of Lawrence Livermore Laboratory," Lawrence Livermore Laboratory, San Francisco, California, 7 February 1990. Bush presented a general rationale for the pursuit of missile defenses, telling his Livermore audience:

Together with strategic modernization and arms control, programs like SDI – the Strategic Defense Initiative – and one of its most promising concepts, Brilliant Pebbles, complement our ability to preserve the peace into the 1990s and beyond.

If the technology I've seen today proves feasible – and I'm told it looks very promising – no war planner could be confident of the consequences of a ballistic missile attack. The technologies you are now researching, developing and testing will strengthen deterrence.

Even as we work to reduce arsenals and reduce tensions, we understand the continuing, crucial role of strategic defenses. Beyond their contributions to deterrence, they underlie effective arms control by diminishing the advantages of cheating. They can also defend us against accidental launches – or attacks from the many other countries that, regrettably, are acquiring ballistic missile capabilities. In the 1990s, strategic defense makes much more sense that ever before, in my view.

So a vigorous research, development and testing program at our national labs will be as crucial as ever, as we adapt both the size and shape of our nuclear deterrent. We're working on a significant reductions in arms – I think that's what the world wants. I believe in it strongly. But to protect the American people, we will settle for nothing less than the highest confidence in survivability, effectiveness and safety of our remaining forces.

Bush's praise of BP was reported in the *Dallas Morning News* (Carl P. Leubsdorf, "Bush Declares Strong Support for 'Star Wars' Program," *Dallas Morning News*, 8 February 1990, p. 6A, reprinted Office of Assistant Secretary of Defense for Public Affairs, *Current News:Special*

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

About a month after Bush's trip to Livermore, Henry Cooper's independent review of 15 March 1990 provided another endorsement of Brilliant Pebbles. Cooper said that the new concept promised to provide an affordable, cost-effective, and survivable space-based interceptor. Moreover, "no technological roadblocks to the Brilliant Pebbles system concept have been identified."[43]

Brilliant Pebbles and the Advent of GPALS

In addition to its affirmation of Brilliant Pebbles, the Cooper report laid out a new vision for missile defenses in the post-Cold War era. This vision flowed from Cooper's assessment of the strategic order that was emerging from a growing restiveness in the Soviet Union and from the proliferation of ballistic missile technology. There were two major implications of the new strategic realities. First, there would be an increased likelihood of accidental and limited missile attacks against the United States. Second, theater missile attacks against U.S. interests around the globe, including deployed U.S. forces, would be far more likely. Therefore, the U.S. missile defense program should begin to focus on providing protection against limited missile strikes (PALS), including those that might be made against deployed U.S. forces.[44]

Edition, "Strategic Defense Initiative," p. 20. An editorial in the *Washington Times* also commented on the President's Livermore speech although it mentioned only SDI and not BP. This editorial referred to Livermore as the "brainstem of the Strategic Defense Initiative. "("The President at Livermore," *Washington Times*, 8 February 1990, p. F2.)

[43] Henry F. Cooper, *SDI Independent Review*, 15 March 1990 (hereafter Cooper, *Independent Review*), Executive Summary, p. 2. Cooper would later claim that Edward Teller introduced him to the BP concept in 1988. "My subsequent all-day visit to Lawrence Livermore National Laboratory," Cooper wrote, "persuaded me of the potential of the hardware under development. "See Henry F. Cooper, "Why Not Space-Based Missile Defense?" *Wall Street Journal*, 7 May 2001. Cooper claimed that 1000 BPs were expected to cost $11 billion in 1991 dollars. "This included all the costs of building and launching the Pebbles, operating them for 20 years, and replacing each Pebble once over the two decades. If fully funded, and without the constraining ABM Treaty, I believe the first-generation Pebbles could have begun operating as early as 1996. "For details on the charter for Cooper's study, see Dick Cheney, Memorandum for Secretaries of the Military Departments, et. al., Subject: "Independent Review of the Strategic Defense Initiative Program," 22 December 1989, Larry Burger, Memorandum for the Under Secretary of Defense (Acquisition), Subject: "Terms of Reference (TOR) for the Process Action Team on SDI," 10 July 1990. Burger was an official in DDR&D[S&TNF].

[44] Henry F. Cooper, *SDI Independent Review*, 15 March 1990, pp. 4, 25-29. For Cooper's views on trends toward the increasing threat of limited missile attacks see pp. 1, 55-79.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

To meet the requirements of the new strategic order, Cooper envisioned an architecture with three main components. The first element, a space-based system, would be central to any effective PALS system, since it would provide an overarching defense layer that would contribute to both theater defense and defense of the U.S. homeland.[45]

The space-based element of PALS was to be underpinned and complemented by the two other components in Cooper's PALS architecture. In the United States a ground-based interceptor system composed of several sites would combine with the space-based (global) element to provide a layered national missile defense system with a high kill probability against a limited attack. Overseas, "local, regional, or terminal defenses would be required" to complement the global element and to ensure protection against shorter-range missiles.[46]

Cooper made several specific recommendations relative to Brilliant Pebbles. In addition to endorsing the existing baseline program, which called for BP to operate only during the boost and post-boost phases, Cooper believed that the Pentagon should consider expanding the BP mission to include operations against re-entry vehicles during the mid-course phase of their flight and in the high endoatmospheric portion of the terminal phase of their flight. Such an expansion would substantially increase the effectiveness of missile defenses, provide a hedge against countermeasures, and enhance the value of BP to a PALS system. On the other hand, the mid-course intercept mission would bring with it the nettlesome challenge of mid-course discrimination, the resolution of which might require the deployment of additional sensors such as Brilliant Eyes, an improved infrared sensor system composed of several hundred small, low-altitude satellites.[47]

---

[45] Cooper, *SDI Independent Review*, p. 26-29.

[46]Cooper, SDI Independent Review, pp. 26-29.

[47]Cooper, Independent Review, pp. 16, 20-23, 50-51, 92-95. See also pp. 26-28 where Cooper discusses the fact that BP was not designed to find cool targets in dark space. Cooper stated that "the critical problem of midcourse discrimination must be addressed by any midcourse system – and this is a very difficult problem. "He discussed the challenges of mid-course discrimination on pp. 20-23. Dr. Charles Infosino advised the BMDO Historian that Dr. Lowell Wood had carefully restricted the operations of his BP system to the early phases of an ICBM's flight where the BP could easily find its target and avoid the problem of mid-course discrimination. Apparently, in response to this expansion of the BP mission, Livermore

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

In support of his proposal to expand the BP mission to include midcourse interception, Cooper called for the completion of the studies necessary to support an informed decision on his proposal. Top Pentagon leaders, including General Monahan, concurred with the study requirement. As a result, General Monahan chartered the Mid and Terminal Tiers Review (MATTR) in the Spring of 1990.[48]

However, before this study was completed, a number of major developments occurred in the SDI program. For one thing, General Monahan retired at the end of June and was succeeded in July 1990 by Ambassador Cooper. About a month after Cooper assumed his duties, SDIO conducted the first BP flight test.

In this test, which occurred on 25 August, a payload consisting of a suite of sensors, a processor, and an attitude control system was lofted to an altitude of 124 miles by a rail-guided, three-stage Black Brant X (BBX) launched from Wallops Island, Virginia. Once outside the atmosphere on the way up, the payload package was to separate from the booster. Then, the BP sensor would acquire and track the thrusting

---

developed a concept called Genius Sand, in which BP interceptors would themselves be fitted with tiny interceptors that could be used against RVs and decoys in the midcourse battle. A recent document from LLNL described the concept as follows:

The Advanced Interceptor Technology (AIT) Program at LLNL has been pursuing research and development of advanced lightweight, miniature kinetic kill vehicles for more than a decade. During the Brilliant Pebbles (BP) program, LLNL developed a concept for a < 1 kg mini-KV that we named Genius Sand (GS) to indicate the high levels of miniaturization that these vehicles required. This concept was proposed in order to extend the effectiveness of the Boost Phase Brilliant Pebble system in the decoy-rich, multi-warhead environment of the midcourse battle space. This concept called for the Brilliant Pebbles space based interceptor to carry approximately a dozen Genius Sand vehicles that could be deployed in midcourse engagements against RVs and other countermeasures. [Quoted from Advanced Interceptor Technology Program, Lawrence Livermore National Laboratory, National Nuclear Security Administration, "Genius Sand: A Miniature Kinetic Vehicle Technology Demonstration for Midcourse Counter-Countermeasures and Submunition Kills," Prepared for the Ballistic Missile Defense Organization and the U.S. Army Space and missile Defense Command Space and Missile Defense Technical Center, 5 November 2001, p. 5.]

[48] [Secretary of Defense], Memorandum for the Secretaries of the Military Departments, et. al., Subject: "Implementation of the Results of the Independent Review of the SDI Program," n. d., with attachment. This unsigned, undated memorandum is bound inside the front cover of Cooper, *Independent Review*. Volume II of the MATTR report states that the MATTR study was initiated by General Monahan in the spring of 1990 in response to the Cooper report. William Z. Lemnios, Ostap S. Kosovych, and Maile E. Smith, *Strategic Defense Initiative Mid and Terminal Tiers Review (MATTR): Final Report*, Vol. II, *MATTR Overview*, 1 March 1991, p. 1-1.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Nihka motor of the BBX third stage, demonstrating its ability to accomplish these tasks against an operational missile. Additionally, the star tracker was to take various images that the computer would use to generate commands for the attitude control system, which would control the flight of the instrument package.[49]

In the event, one of the explosive separation bolts that held the test vehicle's fairing in place fired prematurely, leaving the fairing attached to the rocket by a single bolt. As a result, the fairing was bent and separated improperly, pulling out the telemetry package and causing a loss of test telemetry only eighty-one seconds into the flight. Because of the loss of telemetry, only tangential benefits were realized from the test. Among these was the first successful observation of a rocket by SDIO's ultraviolet plume instrument (UVPI) that was carried aboard SDIO's Low-Power Atmospheric Compensation Experiment (LACE) spacecraft orbiting overhead. The UVPI automatically acquired and tracked the burning of the Nihka motor. At the end of the flight, the components of the experiment splashed down in the Atlantic Ocean as planned.[50]

While no telemetry was received during the first test, it was apparent that the cause of the failure was outside the BP test package. Therefore, SDIO did not need to modify the BP test package. This knowledge, combined with the fact that the objectives of the second test were similar to those of the first, meant that there was no need to repeat the first experiment, since "'the objectives of experiment one could be achieved on a successful flight test two.'" The second test would have to be delayed somewhat to allow time to correct the faulty mechanism that

[49][Strategic Defense Initiative Organization], Memorandum for Correspondence, "SDIO Brilliant Pebbles Experimental Flight," 27 August 1990. Details on the Black Brant X launch vehicle may be found in Patrick E. Fitzgerald, *Special Projects Flight Experiment, Flights 1 and 2: Program Introduction/Requirements Document*, April 1990, pp. 5-6. Fitzgerald was an employee of Ball Aerospace, he prepared the introduction/requirements document for SDIO. The 27 August memorandum details the rockets involved in the Black Brant booster stack. These were the MK-70 Terrier built by Hercules, the Black Brant V built by Bristol Aerospace, and the Nihka also built by Bristol.

[50]"Bad Bolt Deemed Pebble Problem," *Space News*, 19-25 November 1990, "SDIO Brilliant Pebbles Experimental Flight," 27 August 1990, Colonel Rowland "Rhip" Worrell, "SDI 'Brilliant Pebbles' Test Flight," Defense Department Briefing, 18 April 1991. Worrell stated that the flight duration at the time of telemetry loss was seventy-one seconds.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

had caused the BBX to shed its protective shroud improperly.[51]

A little over three weeks before the BP test, Iraq had invaded Kuwait, setting in motion a sequence of events that would have important implications for the SDI program. The Iraqi aggression prompted President Bush to mobilize a coalition to drive Saddam Hussein out of Kuwait. Over the next five and a half months, the United States deployed a major force to the Middle East under operation Desert Shield.

As the United States was deploying its forces to the Middle East, Henry Cooper was garnering support for his PALS concept. A key date in this process was 3 January 1991, two weeks before the Gulf War began, when President Bush received his first full-blown briefing on the new SDI program, now known as GPALS for Global Protection Against Limited Strikes. The presentation took place in the Situation Room in the basement of the White House and was attended by key officials in the Bush government.[52]

Bush decided to adopt the GPALS concept, but his decision was problematical. SDI had never been popular with the Democratically-controlled Congress, which had cut SDI deeply the two previous years and, in FY 1991, placed "sharp restrictions" on space-based elements, which threatened to violate the ABM Treaty. Yet, if GPALS were to have a truly global capability, it would have to include the space-based Brilliant Pebbles. In the words of a "Pentagon official":

> "To have global protection, you've got to have space-based weapons,... They're always in position. If Saddam had a 4,500-kilometer weapon, he couldn't reach the U.S., but he could hit most of Western Europe. Where would you put your ground-based interceptors? You'd have to have them everywhere. The beauty of space-based interceptors is they protect many targets at once. The equivalent protection cannot be done from the ground. Besides, you're better off environmentally and politically having the stuff in space. In space, nobody sees the things."[53]

---

[51]"SDI Testing: Brilliant Pebbles Will Push on to Second Test," *SDI Monitor*, 26 October 1990, p. 242.

[52]Fred Barnes, "White House Watch:Brilliant Pebbles," *The New Republic*, 1 April 1991, p. 10.

[53]Quoted in Fred Barnes, "White House Watch," p. 11. Barnes presented several reasons

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Circumstances would soon change, offering President Bush a window of opportunity for advancing the new SDI architecture.

Tensions in the Middle East had been growing since the beginning of the massive U.S. buildup. The Iraqis were known to possess a considerable number of Scud variant missiles and had used these missiles lavishly in their earlier war with Iran. As a result, there was considerable concern that forces of the American-led coalition would come under missile attack during the Desert Shield build-up. The tension of Desert Shield gave way to the violence of Desert Storm in the pre-dawn darkness of 17 January 1991 when the coalition's air forces were unleashed on Iraqi targets. The six weeks of warfare that followed produced a major military milestone: the first operational engagement between defensive and offensive missiles. The clash between Patriots and Scuds prompted a reporter for the *Los Angeles Times* to declare that the "age of 'Star Wars'" had begun.[54]

As the war progressed, Americans were confronted nightly with television images of civilians and soldiers running for cover as Scuds streaked toward their targets and Patriot missiles rose from their

---

why GPALS was unlikely to be accepted in early January 1991. Among these were the departure of President Reagan, SDI's leading advocate, the refusal of Congress to grant Reagan's request that Abrahamson be promoted to four-star general and Abrahamson's being "forced to retire," Monahan's leadership of the program – he managed the program without championing it, and the distraction of Cheney by his advocacy of the B-2 bomber and of Bush with Soviet relations and German re-unification. (Barnes, p. 10)

[54] For information on the start of Desert Storm, see Thomas A. Keaney and Eliot A. Cohen, *Gulf War Air Power Survey:Summary Report* (Washington, D. C. :U.S. Government Printing Office, 1993), pp. 11-12. For the quotation on the beginning of the Star Wars era, see Melissa Healy, "High-Tech Missile Hits Bull's-Eye," *Los Angeles Times*, 22 January 1991, p. 1. Healy made this comment in response to what was considered at the time to be the first Scud-Patriot battle of the war on 18 January. The actual effectiveness of the Patriot was a much debated topic after the war, and there was some question as to whether the Patriots fired on 18 January were really reacting to a Scud attack or merely a false radar indication. Nevertheless, the Patriot seems to have played a crucial strategic role in keeping the fragile Gulf War coalition viable. This point was made by William Safire, in his Op-Ed piece: "The Great Scud-Patriot Mystery," *New York Times*, 7 March 1991, p. 25, reprinted in Office of Assistant Secretary of Defense for Public Affairs, *Current News:Early Bird*, p. 3. Safire noted that in the case of the Patriot missile: "Psychology triumphed over technology. Why did the Scud, a terror weapon that delivered many of its warheads, fail to terrorize?The ironic reason:The Patriot, even if investigators find it failed in its military mission to kill warheads, averted Saudi panic and Israeli need for reprisal by providing a false sense of security. "

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

launchers to meet them. Two leading senators, Sam Nunn (D-GA) and John Warner (R-VA), actually experienced a Scud raid while visiting Israel. It was not surprising, then, that the combined houses of Congress applauded President Bush on 29 January 1991 when he announced in his State of the Union Address that the focus of SDI was shifting to the GPALS architecture. "I have," the President said, "directed that the SDI program be refocused on providing protection from limited ballistic missile strikes – whatever their source. Let us pursue an SDI program that can deal with any future threat to the United States, to our forces overseas, and to our friends and allies."[55]

A few weeks after Bush's State of the Union Address, the MATTR team completed the study that Monahan had initiated in the Spring of 1990. This study addressed "the ability of the Phase I Strategic Defense System to engage reentry vehicles in their midcourse and terminal phases of flight, with a view toward simplification, cost reduction, and increased effectiveness." It evaluated three versions of the BP concept: the baseline system that operated only during the boost and post-boost phases of an ICBM's flight, Brilliant Pebbles-Midcourse, and Brilliant Pebbles-Terminal. Based on this evaluation, the study recommended including "Brilliant Pebbles (augmented with midcourse intercept capabilities)" in the SDI architecture, which should also include Brilliant Eyes, the Exo/Endo Interceptor (E^2I), a terminal radar to support E^2I, and the Command Center Element to tie the elements together. The study also recommended including GSTS and GBI in the architecture to increase its robustness, but noted that these had a lower priority than the other elements. This architecture, the report concluded, provided for interception in the boost/post-boost, midcourse, and terminal phases of a missile's flight and would force the offensive force planner into complex decisions for off-loading RVs in favor of penetration aids. The presence of a midcourse and terminal phase of defense will force the Soviets into a situation where either there will be fewer midcourse decoys than before, or one in which there will be no terminal decoys if the Soviets elect to concentrate on the midcourse phase. In any event, the two layers of defense should result in a more robust ground-based

[55]George H. W. Bush, "State of the Union Address," 29 January 1991.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

defense.[56]

As fully articulated in SDIO's May 1991 report to Congress, the new GPALS architecture would include four major components: a ground-based national missile defense system to protect the United States, a ground- and sea-based system to defend deployed U.S. forces and the forces and peoples of American allies, a space-based system (Brilliant Pebbles) that could protect any point on the globe against a limited missile attack, and a battle management/command and control system that integrated the other three components into a coherent, synergistic system. Of the three defensive components, Brilliant Pebbles was the most important, since it "would provide global detection of an attack" and was to be capable of destroying both strategic and theater ballistic missiles, provided the latter traveled a distance that exceeded six hundred kilometers. A later fact sheet would put the case for BP as follows:

> The role of Brilliant Pebbles is vital to the GPALS mission. BP will provide global protection against ballistic missiles. While on orbit, a BP will be able to detect a hostile missile launch, decide whether or not to engage the target, and destroy the target by colliding with it. Once given intercept authority from man-in-the-loop, BP will do all of this autonomously and will communicate with other BPs to coordinate which Pebble will engage which target.
>
> The Brilliant Pebbles program represents more than an alternate design for a space-based interceptor. First, BP is a different architectural concept for the space-based segment and incorporates distributed operations, autonomy, and reduced dependence on other system operations.[57]

This was the state of the GPALS architecture as members of Con-

[56]David R. Israel, William Z. Lemnios, Maile E. Smith, and Ostap S. Kosovych,, *Strategic Defense Initiative Mid and Terminal Tiers Review (MATTR): Final Report*, Vol. I, *Executive Summary*, 1 March 1991, pp. 1-1, 2-1, 3-1. See also Philip Finnegan, "SDIO Shifts Focus, Prepares for Cuts," *Space News*, 8-14 October 1990, pp. 1, 20.

[57]Strategic Defense Initiative Organization, *1991 Report to the Congress on the Strategic Defense Initiative*, May 1991, pp. 2-2 – 2-9. See p. 2-5 for the quotation on Brilliant Pebbles. Figure 2-5 on p. 2-9 presents diagrammatically the central role of BP in the GPALS architecture. The fact sheets are Strategic Defense Initiative Organization, "Brilliant Pebbles and GPALD" and "The Brilliant Pebbles Program," Fact Sheet, [18 April 1991]. The titles given here represent two different fact sheets printed front and back on a single sheet of paper.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

gress began their deliberations on the authorization and appropriation bills for fiscal year 1992. As they did, images of Gulf War missile attacks were still fresh in their minds. Their efforts produced the Missile Defense Act (MDA) of 1991 that became law in November 1991.

Congressional Strictures and the Demise of Brilliant Pebbles

Although widely acclaimed by missile defense advocates for setting specific deployment goals for both theater and national missile defense, the MDA of 1991 was in fact a compromise document that also included strong language requiring missile defense deployments to be compliant with the ABM Treaty. This agreement allowed the United States to deploy a single ABM system at Grand Forks, North Dakota, and restricted the number of interceptors at this one site to one hundred. But even here, the MDA introduces a degree of ambivalence for it opens with a statement in Section 232 that implies an expectation that the ABM Treaty would be altered to permit deployment of a fully effective missile defense system that would include multiple sites. Thus, we read:

> It is the goal of the United States to... deploy an anti-ballistic missile defense system, including one or an adequate additional number of anti-ballistic missile sites and space-based sensors, that is capable of providing a highly effective defense of the United States against limited attacks of ballistic missiles.

However, in the following section, which specifies implementation measures, the MDA qualifies this goal by charging the secretary of defense with deploying

> by the earliest date allowed by the availability of appropriate technology or by fiscal year 1996 a cost effective, operationally-effective, and *ABM Treaty-compliant* [italics added] anti-ballistic missile system at a single site as the initial step toward deployment of an anti-ballistic missile system... designed to protect the United States against limited ballistic missile threats, including accidental or unauthorized launches or Third World Attacks.[58]

---

[58]U.S. Congress, House of Representatives, 102d Congress, 1st Session, *National Defense Authorization Act for Fiscal Years 1992 and 1993: Conference Report to Accompany H. R. 2100*, Report 102-311, 13 November 1991, p. 34. It was Part C of this act that carried the title: "Missile

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Further ambivalence is to be found in the law's specific instructions regarding Brilliant Pebbles. On the one hand, the act seemed to recognize that the BP interceptor was critical "to providing a highly effective" missile defenses, since Section 234 (a) called for "robust funding for research and development for promising follow-on anti-ballistic missile technologies, including Brilliant Pebbles." Yet, it expressly forbade the inclusion of BP in the initial plans for a limited national missile defense. In the words of the MDA: "EXCLUSION FROM INITIAL PLAN: Deployment of Brilliant Pebbles is not included in the initial plan for the limited defense system architecture described in section 232 (a)." Moreover, when Congress needed a hostage to ensure the Pentagon would submit a required report on "conceptual and burden sharing issues associated with the option of deploying space-based interceptors (including Brilliant Pebbles)," the hostage taken was Brilliant Pebbles. No more than fifty percent of MDA funding for BP could be spent until forty-five days after DOD submitted the report to Congress.[59]

Some degree of clarity comes in the MDA's specifications for the initial national missile defense architecture, for these were clearly drawn from the ABM Treaty. The architecture was to include only one hundred ground-based interceptors in accordance with treaty provisions. It was to have only "fixed, ground-based, anti-ballistic missile battle management radars." Finally, the architecture was to make optimum "utilization of space-based sensors, including sensors capable of cuing ground-based anti-ballistic missile interceptors and providing initial targeting vectors, and other sensor systems *that are also not prohibited by the ABM Treaty* [italics added], such as a ground-based sub-orbital surveillance and tracking system."[60]

Faced with this ambivalence, a fainthearted SDI program manager might have severely restricted the Brilliant Pebbles program. Henry Cooper was anything but fainthearted. And under his tutelage, SDIO continued to push BP because of its primal role in GPALS, thereby

---

Defense Act of 1991. "Hereafter, this document will be referred to as MDA of 1991.

[59]MDA of 1991, p. 35.

[60] MDA of 1991, pp. 34-35.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

setting himself and his agency on a collision course with congressional Democrats, many of whom were committed to arms control and staunch opponents of SDI.[61] The critical collision came on 9 April 1992 when Ambassador Cooper testified before the Subcommittee on Strategic Forces of the Senate Armed Services Committee.

By this time, Sam Nunn, chairman of the Armed Services Committee, was suspicious of the Brilliant Pebbles program. This suspicion manifested itself in a request from Nunn to the General Accounting Office for a review of the analysis that SDIO had done regarding the possible effectiveness of Brilliant Pebbles.[62]

The GAO started its report by describing the BP architecture that was to consist of several staggered rings of interceptors orbiting at an altitude of about 400 kilometers. The report then noted that SDIO's estimates of the capabilities of the Brilliant Pebbles concept were based on computer simulations of forty different attack scenarios and that such simulations offered the only method of analysis available "at this early stage" in the program. The results of this analytical process were to be used to refine a BP design that would then be put through a five-year testing program to secure data that would then replace the assumptions and theories of the simulations.[63]

GAO granted that computer simulations were useful tools and that such simulations were the only means of investigating matters such as

---

[61]As a space-based weapon, BP was sure to run afoul of ABM Treaty supporters, since that treaty forbade mobile ABM systems, whether ground-, sea-, air-, or space-based. Additionally, there was the issue of weapons in space. Regarding this latter point, at the end of May 1993, General Charles Horner, Commander-in-Chief, U.S. Space Command, stated that "you have a problem with philosophical people who say they are against weapons in space. They are missing the boat, because the weapon in space is not the space-based interceptor. It's the warhead on the intercontinental ballistic missile. "(Ben Iannotta, Interview with General Horner, *Space News*, 31 May-6 June 1993, p. 22.)

[62]United States Government Accounting Office, *Strategic Defense Initiative: Estimates of Brilliant Pebbles' Effectiveness Are Based on Many Unproven Assumptions*, GAO Report NSIAD-92-91, March 1992, p. 2 (Hereafter, GAO/NSIAD-92-91).

[63]GAO/NSIAD-92-91, pp. 3-4. Regarding the specific assumptions in the SDIO simulations, GAO included "assumptions about many key operational characteristics" such as the ability of the constellation to maintain continuous surveillance of the earth's surface, the length of time required for the BP interceptors to receive the enabling command that would allow them to attack approaching missiles, and the handling of target assignment to individual BP interceptors.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

the performance of a future system. Still, developers must be careful to avoid the pitfall of mistaking data from simulations for information that was necessarily representative of reality.[64]

Included as an appendix to the GAO report was a letter from Henry Cooper in which he generally concurred with the GAO's findings. However, at the same time, Cooper noted that SDIO's use of simulations was within the bounds of sound engineering practice. In his words:

> Brilliant Pebbles simulation activities are consistent with a program in the demonstration and validation phase. The "maturity" of Brilliant Pebbles simulations will change and be enhanced with improvements in the design of primary system hardware prototypes. It is crucial that the simulation efforts provide sufficiency to allow the program to proceed to the next milestone.
>
> The report indicates that simulations may rely on data that are incomplete and assumptions that may be inaccurate. That does not limit the simulation usefulness. [sic] The Strategic Defense Initiative Organization has relied on an arduous engineering assessment tempered by real-world experience to arrive at a working hypothesis. Assumptions are based upon a combination of the understanding of the system operation, operating characteristics, and engineering analysis. As more data becomes available, assumptions are modified as necessary. Additionally, the Strategic Defense Initiative Organization has relied upon the best available threat information, as found in the most current intelligence scenarios.
>
> It also should be noted that some of the assumptions reflect validated operational requirements. The acquisition process requires an evaluation of system capability to meet those requirements. The Strategic Defense Initiative Organization does not randomly choose parameters. Operational requirements are matched, to the greatest extent possible, to system performance assumptions. Furthermore, it should be recognized that system effectiveness also is a function of selected tactics and that the user, U.S. Space Command, is deeply involved in the development of operational employment, strategy, and tactics.[65]

---

[64]GAO/NSIAD-92-91, p. 11.

[65]Henry F. Cooper, SDIO Director, to Frank C. Conahan, Assistant Comptroller General, Letter, 26 February 1992. For a more detailed critique of the GAO report, see R. H. Worrell, III, Memorandum for GAO, Subject: "Draft GAO Report on BP Effectiveness," 4 February 1992.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Nunn received this report within two weeks[66] of the 9 April hearings, and it may have contributed to the hostility toward Brilliant Pebbles that he exhibited during the hearings. Since his presence was required on the floor of the Senate where an important budget resolution was being considered, Nunn missed the opening of the hearings. When he entered the hearing room about 4:30 p.m., Nunn effectively took control of the proceedings, directing a staff aide to put up a series of large poster-board briefing charts as he proceeded to take Cooper step-by-step through the points he wanted to make.[67]

First, Nunn noted that the Missile Defense Act established for SDI the goal of fielding a treaty-compliant ABM system by 1996 while allowing for a delay if this goal proved technically unfeasible. Nunn indicated that he was willing to be flexible with regard to the date, but was upset by an assertion by SDIO to the effect that Congress had failed to provide the funding needed to meet the 1996 deadline. Nunn then accused SDIO of creating the shortfalls through its own funding allocations. Included in the SDIO allocations that Nunn challenged was excessive spending on space-based elements, including Brilliant Pebbles, that could not be ready in time for the specified deployment date of 1996.[68]

After Cooper defended his programmatic and funding decisions,

---

[66]GAO Report NAISD-92-91 was dispatched to Nunn by Nancy R. Kingsbury to Sam Nunn, Letter, 27 March 1992, which is included in the front of the report itself.

[67] Hearings of the Strategic Forces Subcommittee of the Senate Armed Services Committee, Subject: "FY 93 SDIO Budget Request," 9 April 1992, transcript prepared by contractor for SDIO, p. 28. The SDIO Historian, Dr. Donald R. Baucom, attended these hearings. The account of the hearings presented here reflects the influence of his recollections as captured in notes taken during the hearings.

[68] Transcript of 9 April 1992 Hearings, pp. 28-31. There was an exchange at this point between Cooper and Nunn as to what treaty-compliant meant. From his perspective, Cooper said, treaty-compliant meant that the LDS could only be deployed at Grand Forks. Only if the ABM Treaty were amended could the system be deployed at other sites. Nunn said that legally, this provision meant the conditions specified by the ABM Treaty at the time the MDA of 1991 was passed. Cooper responded that what he meant was that if the ABM Treaty were amended to allow deployment at other sites, it might be better to deploy at three sites, one of which might not be Grand Forks. If that turned out to be the case, deploying at Grand Forks would waste about $2 billion. Under these circumstances, DOD would come back to Congress and ask for permission to change the deployment plans. Nunn then dropped the issue and moved on to his next point. (pp. 29-30)

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Nunn accused him of continuing to push the GPALS architecture in the face of the MDA's requirement for the deployment of a limited national missile defense system at Grand Forks. Instead of pushing systems like the Ground-based Surveillance and Tracking System that would add to the effectiveness of the Grand Forks deployment, Cooper had chosen to allocate "$390 million for Brilliant Pebbles, even though Congress specifically excluded it from the Limited Defense System [LDS] architecture." Nunn ended this line of argument by essentially charging that Cooper had purposefully undermined the LDS deployment.

> So, it is my assertion, Mr. Ambassador – which you can rebut – that what you've done by a combination of funding, and the reduction in GSTS, is, you made sure that Grand Forks would not be effective if we did it during this decade. Therefore, you made it almost impossible for it to happen during this decade. I don't know the motive for that, but that's what it looks like to me.[69]

Cooper defended his program decisions by pointing out the problems associated with the GSTS program, which would add about $1 billion to the program if pushed at the level advocated by Nunn. He also stated a second time that in choosing the funding level for space-based and follow-on research and development he had taken as his guide the funding levels voted by Congress when it passed the MDA: 11% of program funding for space-based interceptors and 14% for other follow-on technologies. Nunn then responded that regardless of Cooper's points, the prospect of a 1996 deployment date for the limited defense system was not supported by the current SDIO program. To this, Cooper replied that the 1996 date had never really been possible.[70]

All of this notwithstanding, Nunn continued to hammer home his basic point: SDIO was planning to spend $2.6 billion on Brilliant Pebbles, a development that could not possibly contribute to an LDS deployment for 1996, the priority established by the MDA. "It's clear Mr. Ambassador, just by the numbers, it's absolutely clear, that your priority is not – maybe it's the right priority but it's not the priority of Congress – your priority is not to meet an early deployment date on an

[69] Transcript of 9 April 1992 Hearings, pp. 32-35.
[70] Transcript of 9 April 1992 Hearings, pp. 35-37.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ABM [Treaty]-compliant system." The fact that SDIO was in the process of spending $2.6 billion on the BP program made it was clear that Cooper's priority was "still Brilliant Pebbles." Therefore, Nunn continued, "it's very clear" that Congress will have to make "a more definitive statement" of its goals for the SDI program in this year's authorization law.[71]

The contention between Nunn and Cooper in the April exchange was caused by the ambivalence of the MDA of 1991, a compromise document cobbled together to mollify the differences between the proponents of missile defense and the advocates of arms control. The former favored an all out effort to field a missile defense with the most capable technology in the shortest possible time. The latter were determined to protect the ABM Treaty. The goal of fielding a system by 1996 played to advocates of missile; requiring the limited national defense system to be treaty-compliant satisfied arms control supporters.

In his exchange with Nunn, SDI program manager Cooper was trying to explain how he had taken congressional instructions and chosen from among the available technological options a mix of systems that would provide a limited defense capability at the earliest time. The program Cooper designed also provided for the incorporation over time of new and improved components that would enhance overall system performance. Not having wrestled with the performance trade decisions that Cooper had been forced to take, Nunn could not fully appreciate the difficulties posed by the 1996 deployment deadline. Part of Cooper's concern was, no doubt, to maintain the integrity of the BMC^3 system, the embodiment of the system architecture, which had to be designed from the outset to integrate not only near term systems, but follow-on systems as well. Without this kind of architectural planning, any system fielded was a technological cul-de-sac that would quickly lose its effectiveness in the face of offensive threats that would surely continue to evolve and improve.

Realizing the seriousness of the situation, Cooper moved immediately to cut $2 billion from the funding profile of the overall space-based interceptor program. These cuts included reductions that forced a

[71] Transcript of 9 April 1992 Hearings, pp. 38-39, 42.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

slippage of thirty months in the Brilliant Pebbles program.[72]

At the same time, Nunn was moving ahead with plans to codify the views he had expressed in the 9 April 1992 Senate hearings. In doing so, he would be sounding the death knell for Brilliant Pebbles and the entire GPALS concept, for GPALS was radically dependent for its effectiveness upon Brilliant Pebbles, which provided an over-arching, space-based defensive layer that enhanced both theater and national defenses. It was the synergism between space-based and surface-based missile defense components that justified the integration of all three components into a coherent system through the design of the GPALS BMC^3 system, which embodied the very essence of this critical synergism.

The themes that Nunn had expressed in his 9 April exchange with Cooper surfaced again in August during the Senate debate of the FY 1993 authorization act and suggest that Senate Democrats were intent on fixing what they saw as flaws in the Missile Defense Act of 1991. On 7 August 1992, Senator Nunn again expressed his reservations about the direction of the SDI program. SDIO had "continued to spend excessive amounts" on Brilliant Pebbles, said Nunn,

> despite Congress' clear direction last year excluding it from the architecture for the multiple-site limited defense system. Since that eventual multi-site system will not likely be completed until the second half of the next decade – in other words, sometime after 2005 – there is no need to develop Brilliant Pebbles for possible deployment any sooner.
>
> This action [being contemplated by the Senate] puts the Brilliant Pebbles funding profile on a downward slope, a course the committee believes is fully justified given the uncertainty over how and where this option might fit into the picture[73]

During the same debate, Senator Carl Levin (D-MI) asserted that the threat to the U.S. form a ballistic missile attack was not as serious as previously believed and faulted Congress for providing too much money

---

[72] "SDIO Scales Back Brilliant Pebbles, Brilliant Eyes in Near Term," *Defense Daily*, 7 May 1992, p. 216, reprinted in Office of Assistant Secretary of Defense for Public Affairs, *Current News:Special Edition*, 7 May 1992, pp. 11-12.

[73] Senator Sam Nunn, Speaking in Debate on the FY 1993 DOD Authorization Act, *Congressional Record*, 7 August 1992, p. S11831.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

for Brilliant Pebbles. In his words:

> The Committee discovered this year that its intent had been disregarded. More money was being put into research of Brilliant Pebbles and taken away from limited defense systems even though early deployment of Brilliant Pebbles had been specifically excluded. After that experience, we should have learned that if we don't want Brilliant Pebbles to be a priority for deployment, we should stop allocating such high sums for research on Brilliant Pebbles.
>
> Space-based sensors are something we should be continuing research on but space-based interceptors like Brilliant Pebbles should be explored for a follow-up system, not funded as the crash course program.[74]

In response to the comments of Nunn and Levin and other signals coming from Congress relative to the SDI program, Secretary of Defense Richard Cheney warned Nunn that congressional restrictions on SDI might prompt President Bush's top advisors to recommend a veto of the authorization bill. Cheney said that restrictions in both the House and Senate versions of the FY 1993 Defense Authorization Bill would undermine the top national priority accorded missile defense in the Missile Defense Act of 1991. Indeed, the funding levels in these bills would

> likely postpone until the next century our effort to protect the American people from a ballistic missile attack, severely curtail Brilliant Pebbles – contrary to the "robust funding" called for in the Missile Defense Act, and jeopardize our efforts to join Russia and our Allies in realizing a joint global protection system as agreed by President Bush and President Yeltsin. Unless the final bill sustains our ability to pursue global missile defense consistent with the Missile Defense Act, the President's senior advisors would recommend a veto.[75]

Cheney's defense of Brilliant Pebbles was not helped by the failure of its third flight test on 22 October 1992. This was to be a non-intercept flight test during which a booster would carry into space both a target

[74] Senator Carl Levin, Speaking in Debate on the FY 1993 DOD Authorization Act, *Congressional Record*, 7 August 1992, p. S11889. Ambassador Cooper would later claim that this debate "made abundantly clear congressional leaders were bent on destroying the Pebbles program, and not allowing its testing in Earth orbit. "See Henry F. Cooper, "Why Not Space-Based Missile Defense?," *Wall Street Journal*, 7 May 2001, p. A22.

[75] Dick Cheney to Sam Nunn, Letter, 9 September 1992.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and a kill vehicle built by Lawrence Livermore National Laboratory. Once in space the two test vehicles were to separate, and the four-foot long target was to ignite its engine. After watching the engine ignite, the thirty kilogram BP vehicle would then accelerate to a speed of two kilometers per second and close to within ten meters of the target.[76]

Seventeen seconds after liftoff from Wallops Island, personnel on the ground noticed pieces falling off the booster. Fifty-five seconds into the flight, when it became obvious that the booster had experienced a major failure, range safety destroyed the rocket. Later analysis pointed toward a failed nozzle in the first stage of the ARIES I booster as the cause of the booster's failure.[77]

In the meantime, the views expressed by Nunn and Levin in their August floor speeches were being incorporated into the National Defense Authorization Act for FY 1993. Here, Congress modified the 1991 Missile Defense Act by making it clear that preserving the ABM Treaty was of paramount concern to Congress. In the 1991 version of the law, Section 232, paragraph (a) (1), stated:

> (a) Missile Defense Goal. – It is a goal of the United States to –
>
> (1) deploy an anti-ballistic missile system, including one or an adequate number of anti-ballistic missile sites and space-based sensors, that is capable of providing a highly effective defense of the United States against limited attacks of ballistic missiles.[78]

---

[76]"Nozzle at Fault in Failed Brilliant Pebbles Test," *Aerospace Daily*, 6 November 1992, pp. 206-207.

[77]Strategic Defense Initiative Organization, Office of External Affairs, Memorandum for Correspondents, No. 298-M, 23 October 1992, "Brilliant Pebbles Flight Test Fails," *Aerospace Daily*, 26 October 1992, pp. 133-134, "SDIO Experiment Launch Vehicle Problems," Internal SDIO Document, [Approximate Date 1 November 1992]. The results of the Brilliant Pebbles test program are summarized in "Brilliant Pebbles Restructured to Demo Program," *SDI Monitor*, 15 January 1993, p. 21. According this article, the final two BP tests using LLNL hardware had been canceled by 15 January 1993. Apparently, these cancellations were part of what Colonel Rhip Worrell, BP program manager, meant when he said that LLNL's role in the program had been "throttled back significantly" when BP was latter transferred to the Air Force. Also involved in the cutback to the BP program was a slippage of twelve-to-eighteen months in the contractor test program and the possibility that "one or two of the planned intercept tests might be canceled. "

[78] U.S. Congress, House of Representatives, *National Defense Authorization Act for Fiscal Years 1992 and 1993:Conference Report to Accompany H. R. 2100*, Report102-311, 13 November 1991, p. 34 (hereafter House Report 102-311).

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The 1992 Authorization Act replaced this paragraph with the following:

(a) Missile Defense Goal. – It is a goal of the United States to –

(1) comply with the ABM Treaty, including any protocol or amendment thereto, and not develop, test, or deploy any ballistic missile defense system, or component thereof, in violation of the treaty, as modified by any protocol or amendment thereto, while deploying an anti-ballistic missile system that is capable of providing a highly effective defense of the United States against limited attacks of ballistic missiles.[79]

The 1992 Act also significantly cut funding for space-based interceptor research and development, including funding for Brilliant Pebbles. The 1991 act had established the space-based interceptor element and defined it as follows:

> The Space-Based Interceptors program element shall include programs, projects, and activities (and supporting programs, projects, and activities) that have as a primary objective the conduct of research on space-based kinetic-kill interceptors and associated sensors that could provide an overlay to ground-based anti-ballistic missile interceptors.

For this program element, the 1991 Act provided $465 million and specified that not more than $300 million of this money could be spend on Brilliant Pebbles. The 1992 version of the act cut total funding for the space-based interceptor element to $300 million.[80]

Where the architecture was concerned, the limited defense system specified in the MDA of 1991 was retained in the 1992 bill. However, wording as to a sense of urgency with regard to deployment, specifically, the requirement to deploy by 1996 or as soon as was technically feasible, was removed. Additionally, the ground-based surveillance and tracking system was specifically mentioned as a sensor candidate in the limited national missile defense system. Moreover, in accordance with a point Nunn stressed in his April exchange with Cooper, the FY 1993 act directed SDIO "to plan the architecture for the initial, Treaty-compliant

---

[79] U.S. Congress, House of Representatives, *National Defense Authorization Act for Fiscal Year 1993:Conference Report to Accompany H. R. 5006*, Report102-966, 1 October 1992, p. 44 (hereafter House Report 102-966).

[80] House Report 102-311, p. 37, House Report 102-966, p. 43.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

ABM site on the basis of the Treaty as now constituted and not as it may be revised." Furthermore, only after DOD determined that the use of upgraded early warning radars in an ABM system was treaty compliant could these radars be included in planning for the treaty-compliant site of the limited defense system.[81]

The 1992 authorization act also required SDIO to divest itself of "far-term follow-on technologies" that "could distract management and result in funding shortfalls" as SDIO came increasingly to focus on a "near-term deployment architecture." Far-term technology referred to "a technology that is not likely to be incorporated into a weapon system within 10 to 15 years after the date of enactment of this Act."[82] This requirement, combined with Nunn's view that Brilliant Pebbles would not be needed until after 2005, constitute another major step in the decline of BP, since these two points could form the basis of a rationale for transferring the program to another agency.[83]

By the beginning of 1993, Brilliant Pebbles had begun its death rattle. First, SDIO announced in early November 1992 that it would be forced to remove the funds-strapped BP program from the acquisition process. Then, SDIO transferred the program to the Air Force with an effective date of 18 December 1992 and let new contracts in January 1993 convert the Brilliant Pebbles program into an "advanced technology demonstration."[84]

---

[81] House Report 102-966, pp. 44-45, 643-644.

[82] House Report 102-966, p. 45.

[83]Henry F. Cooper, "A Summary of SDI Programs and Plans for Theater and National Ballistic Missile Defense," 4 January 1993, p. 12, noted that the Space-Based Interceptor program, which he noted was Brilliant Pebbles, "could, within 15 years, provide significant added performance capabilities. "Cooper also stated in a footnote on this page that the "pace at which systems concepts can be fully developed and fielded" in the case of BP "is set by the available funding – not the state of technology. Present schedules could be considerably shortened, perhaps up to half, if technology limited development programs were funded. "

[84]"SDIO to Renegotiate Brilliant Pebbles Contract, Slow Program," *Aerospace Daily*, 5 November 1992, pp. 196-197, Rhip Worrell, "Brilliant Pebbles: A Technology Demonstration Program," Set of Briefing Slides, 3 December 1992, Slides 3, 7, Thomas A. Fitzgerald, Memorandum for Brilliant Pebbles Interface POCs, Subject: "Brilliant Pebbles Task Force Relocation," 16 December 1992. In his "Strategic Defense Initiative:General Manager's Report," January 1993, Briefing, Dr. James Carlson stated that the Air Force and SDIO had signed the transfer memorandum of agreement on 15 December 1992. Slide 3 of the Worrell briefing states that Cooper directed the restructuring of the BP program in November 1992.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Brilliant Pebbles continued its decline under the new administration of President William J. Clinton. On 2 February 1993, Secretary of Defense Les Aspin issued his budget guidance for the SDI program; it reduced Brilliant Pebbles to a technology base program. Aspin's guidance was codified in Program Budget Decision (PBD) 756 of 3 March 1993, which detailed the changes that the Clinton administration was imposing on the Brilliant Pebbles program. The Secretary's final decision for FY 1994 reduced BP's $100 million total obligation authority to $75 million and moved BP into the follow-on technology category.[85] With this shift in status and funding, the Brilliant Pebbles program was renamed the Advanced Interceptor Technology (AIT) Program in March 1993.[86]

The AIT program limped along until 1 December 1993 when Dr. James D. Carlson, acting deputy director for the Ballistic Missile Defense Organization (BMDO),[87] issued a stop work order ending the program. Carlson explained the reasons for the decision as follows:

> Reductions in the Ballistic Missile Defense Organization (BMDO) Research and Support Activities program mandate radically reduced funding in FY 1994 for the Advanced Intercept [sic] Technology program. Furthermore, our implementation of Bottom Up Review decisions and fiscal constraints for the Ballistic Missile Defense FY 1995-99 program can provide for only a single exoatmospheric kinetic kill vehicle integrated technology program and cannot support a separate space-based interceptor effort.
>
> Therefore, you are directed to immediately stop all work on the Advanced Intercept [sic] Technology program funded under PMA F1214. All further technical effort must immediately cease. The Air Force must absolutely minimize termination costs in bringing these efforts to a

---

Slide 7 states that Cooper had directed that the BP program was to be realigned to comply with congressional intent, including the transfer of "far term follow-on technologies to services. "

[85]Les Aspin, Memorandum for Director, Strategic Defense Initiative Organization, Subject: "FY 1994 Budget Adjustments," 2 February 1993, Program Budget Decision Number 756, Subject: "SDI Programs," 3 March 1993.

[86]Department of Defense, Office of the Inspector General, "Brilliant Pebbles Program," Audit Report Number 94-084, 14 April 1994, p. 1, Keith Englander, "Strategic Defense Initiative: Advanced Interceptor Technology Program," Briefing, 31 March 1993.

[87]On 13 May 1993, Secretary of Defense Les Aspin announced that DOD was changing the name of the SDI Organization to Ballistic Missile Defense Organization.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

close.

Carlson found it regrettable that the program had to be terminated "given past investments and program progress." However, under the circumstances, termination was unavoidable.[88]

Epilogue:

Clementine and the Ghost of Brilliant Pebbles

But Clementine's very triumph worked against it in ways that shed light on the politics underlying the space program. The spacecraft's supporters in the Pentagon believe that the Clinton administration dislikes Clementine because it represents the ghost of Star Wars, which was President Reagan's pet program, and therefore prefers a program to rival it.[89]

By the end of 1991, the budget cuts that were strangling the Brilliant Pebbles program had aroused concern that the capabilities of space-based technologies developed in the SDI program would never be demonstrated. As a result, in January 1992, Lieutenant Colonel Pedro L. Rustan and a number of his SDIO colleagues gathered in the office of SDIO Director Henry Cooper and formulated the concept for a space probe mission based on the technologies being developed for Brilliant Pebbles.[90] This was the genesis of Clementine,[91] a joint undertaking

---

[88]James D. Carlson, Memorandum for Air Force Program Executive Officer for Space, Subject: "Advanced Intercept Technology (AIT) Program Stop Work Order," 1 December 1993. Project 1214 is listed in Ballistic Missile Defense Organization, *1994 Report to the Congress on Ballistic Missile Defense*, July 1994, p. A7, as the "Advanced Interceptor Technology (AIT) Program. "The entry under this project number states: "This effort encompassed demonstrating key space interceptor and satellite technologies, based on system requirements and designs, and performing risk reduction. The Brilliant Pebbles (BP) program developed the primary technology in the AIT program. This project is to be discontinued after FY 1994. "The funding profile for this project included only $15,000 in FY 1994, presumably for contract termination costs.

[89]William E. Burrows, "The New Millennium," *Air and Space Magazine*, August-September 1996.

[90]This account of the origins of the Clementine program merges accounts given by Ambassador Cooper and Pete Rustan. Henry F. Cooper, "Why Not Space-Based Missile Defense?," *Wall Street Journal*, 7 May 2001, p. A22, states that Clementine was formulated in his office "immediately after a Senate floor debate in 1992 made abundantly clear congressional leaders were bent on destroying the Pebbles program, and not allowing its testing in Earth orbit. "Colonel Pedro L. Rustan, who as a lieutenant colonel ran the Clementine program, gives two versions of the origins of Clementine. In one, he fixes the origins in a September 1990 letter from

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

sponsored by the Ballistic Missile Defense Organization and NASA.

The Clementine probe would first be launched into a low earth orbit where it would remain for a week while its systems were checked out and stabilized. Then, its interstage motor would boost it into a lunar orbit where it would remain for about two months, taking "pictures" of the Moon in various bands of the electromagnetic spectrum. To assure full coverage of the moon's surface, after a month in one orbit, Clementine would shift to a second one. After the second month in lunar orbit, the probe would maneuver into "a two-revolution phasing loop with the Earth and obtain a gravity-assist lunar swingby." This would be followed by a three month flight that would culminate in a rendezvous with the near-earth asteroid Geographos. Closing at 10.8 kilometers per second, Clementine and the asteroid would pass within about a hundred kilometers of each other. Then, the probe would continue out into deep space.[92]

---

the NASA administrator to the under secretary of defense for acquisition (Atwood) asking about the use of DOD technologies in NASA's space exploration program. This spawned a six-month study that suggested a candidate mission that would entail a fly-by of the near-earth asteroid Geographos. Rustan then noted that "the mission interested SDIO because it would use natural celestial bodies instead of man-made targets to flight-qualify advanced lightweight technologies. "The target asteroid would be "a cold body against a deep space background. "Moreover, the "approach is at a realistic closing velocity of about 11 km/sec. "Rustan went on to say that in early 1992 this mission, with a two month lunar mapping component added, was approved by the SDIO director as part of the agency's sensor integration program. (Rustan, "Clementine: Mining New Uses for SDI Technology," p. 38.)In a later account (Pedro L. Rustan, "Editorial: Clementine Mission," *Journal of Spacecraft and Rockets*, November-December 1995), Rustan said that by 1991, the development of most of SDIO's space programs had been stopped. Rustan considered it detrimental to the U.S. space program that "no spacecraft were going to be built and flown that would take advantage of the many advanced lightweight components that had been developed for small space-based interceptors and surveillance systems. Therefore, some of us decided that a low-cost space mission should be built, demonstrating the usefulness of the newly developed technology. Thus the Clementine Program was born. "

[91]Pedro L. Rustan, "Clementine: Mining New Uses for SDI Technology," *Aerospace America*, January 1994, p. 38, provides the following explanation for the name "Clementine. "

In early 1992, with the addition of a two-month lunar mapping segment to demonstrate sensor performance, the [fly-by] mission [to Geographos] was approved as part of the [SDIO] sensor integration program. Since the mission would help determine the mineral content of the Moon and the asteroid, the project was named Clementine, after the old ballad. And Clementine will indeed be "lost and gone forever" after the flyby.

[92]Rustan, "Clementine: Mining New Uses for SDI Technology," pp. 38-39, Paul DeLaHunt, Steve Gates, and Marv Levenson, "Clementine Attitude Determination and Control

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Launched aboard a Titan II rocket on 25 January 1994, Clementine was spectacularly successful in the lunar portion of its mission. In seventy-three days, it completed about 350 lunar orbits and took almost 1.8 million multi-spectral images of the moon. These images provided the "first high fidelity photometric survey of an extraterrestrial body."[93] Furthermore, Clementine's data indicated the existence of water at the lunar poles.[94] Unfortunately, while Clementine was performing the maneuver that would fling the probe toward Geographos, a computer malfunction caused the spacecraft's attitude control system to carry out an eleven minute burn that depleted the probe's fuel and left it rotating at eighty revolutions per minute, making it impossible for Clementine to complete the asteroid flyby.[95]

System," *Journal of Spacecraft and Rockets*, November-December 1995, p. 1054-1055.

[93]"Clementine Launched," *Aviation Week*, 31 January 1994, p. 28, Trevor C. Sorensen, et. al., "Spacecraft Autonomous Operations Experiment Performed during the Clementine Lunar Mission," *Journal of Spacecraft and Rockets*, November-December 1995, pp. 1049, 1053, Henry Garrett, Pete Rustan, and Dwight Duston, "Clementine: Future Space Technology – Today," *Military and Aerospace Electronics*, 28 September 1995. The copy of this article in the BMDO historical files does not include pagination. The quotation given here is from the first page of the article. For a detailed analysis of the Clementine mission, see Committee on Planetary and Lunar Exploration, Space Studies Board Commission on Physical Sciences, Mathematics, and Applications, National Research Council, *Lessons Learned from the Clementine Mission* (Washington, D. C.: National Academy of Sciences, 2001).

[94]Leonard David, "Clementine Data Suggest Moon Harbors Ice," *Space News*, 16-22 October 1995, p. 3, "Ice on Moon Confirmed, Exploitation Seen Possible," *Aerospace Daily*, 4 December 1996, pp. 331-332. The title of the *Aerospace Daily* article is deceiving, for the article itself states: "Wesley Huntress, associate NASA administrator for space science, said yesterday the up-coming Lunar Prospector mission, scheduled for launch in September 1997, 'will permit scientists to infer the presence or absence of ice with greater precision than possible via the innovative but indirect method used by the Clementine team.'" According to "Jury Still out on Lunar Water," *Astronomy*, September 1997, p. 20, a group of scientists led by Cornell astronomer Donald Campbell challenged the findings of ice on the Moon in an article appearing in the 6 June 1996 edition of *Science*. The date of the *Science* article was 6 June 1997 vice 1996. The Lunar Prospector probe did confirm the Clementine team findings of water on the Moon's surface. (Director of the Ballistic Missile Defense Organization, Memorandum for the Under Secretary of Defense for Acquisition and Technology and the Principal Deputy Under Secretary of Defense for Acquisition and Technology, Subject: "Ballistic Missile Defense Organization's Clementine Missile to the Moon – INFORMATION MEMORANDUM," 17 March 1998. This memorandum was drafted by Dr. Dwight Duston, BMDO's Assistant Deputy for Technical Operations.)

[95]Paul DeLaHunt, Steve Gates, and Marv Levenson, "Clementine Attitude Determination and Control System," *Journal of Spacecraft and Rockets*, November-December 1995, p. 1054.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

In addition to the very valuable lunar data collected, Clementine served as a highly successful test-bed for twenty-three lightweight SDI technologies, all of which performed properly. A number of these technologies were directly related to the Brilliant Pebbles program. Specifically, Clementine's cameras and sensors had been developed for BP. Clementine also verified the autonomous operational mode that was to have been employed with Brilliant Pebbles. This verification came during orbit number 303, when Clementine operated in a completely autonomous mode throughout the full orbit. Given these achievements, Ambassador Cooper was not wide of the mark when he wrote in May 2001 that "the Clementine deep-space probe successfully space-qualified nearly the entire suite of first-generation Brilliant Pebbles hardware... and software."[96]

Beyond these accomplishments, Clementine lent support to the philosophy that had initially guided the Brilliant Pebbles development and acquisition process – the maximum use of commercial off-the-shelf components and a minimum reliance on hardware designed to military specifications. Those who developed Clementine referred to the probe as "a desktop computer hooked up to some camcorders and a mobile phone."[97]

The success of Clementine also points up one of the basic characteristics of development programs like Brilliant Pebbles. The knowledge and technical developments spawned by such programs do not simply evaporate when a program is terminated. Instead, they remain in the technology base that supports U.S. aerospace developments.[98]

---

[96]Katie Walter, "Adapting to a Changing Weapons Program," *Science and Technology Review*, January/February 2001, p. 19, Henry F. Cooper, "Why Not Space-Based Missile Defense?," *Wall Street Journal*, 7 May 2001, p. A22, Henry Garrett, Pete Rustan, and Dwight Duston, "Clementine: Future Space Technology – Today," *Military and Aerospace Electronics*, 28 September 1995. The copy of this article in the BMDO historical files does not include pagination. The quotation given here is from the first page of the article.

[97]Katie Walter, "Adapting to a Changing Weapons Program," *Science and Technology Review*, January/February 2001, p. 19, Henry F. Cooper, "Why Not Space-Based Missile Defense?," *Wall Street Journal*, 7 May 2001, p. A22, Henry Garrett, Pete Rustan, and Dwight Duston, "Clementine: Future Space Technology – Today," *Military and Aerospace Electronics*, 28 September 1995. The copy of this article in the BMDO historical files does not include pagination. The quotation given here is from the first page of the article.

[98]Department of Defense, Office of the Inspector General, "Brilliant Pebbles Program,"

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Brilliant Pebbles was an integrating concept that started out by drawing upon America's broad technology base, military and commercial, for the components needed to make the interceptor a reality. During BP's short four-year life, it enhanced these components and related knowledge, and both the components and the knowledge remained in the U.S. technology base when Brilliant Pebbles was canceled. Thus in 2001, the Lawrence Livermore National Laboratory was able to respond to renewed interest in space-based interceptors under the administration of President George W. Bush by resurrecting the Brilliant Pebbles technology and concept. This came in a proposal for a technology demonstration program aimed at developing "a new class of miniature kill vehicles."[99]

Acronymns

ABM	Anti-Ballistic Missile
AIT	Advanced Interceptor Technology
ASAT	Anti-SATellite System
BBX	Black Brant X
BMC3	Battle Management Command, Control, and Communications
BMDO	Ballistic Missile Defense Organization
BP	Brilliant Pebbles
BSTS	Boost Surveillance and Tracking System
DAB	Defense Acquisition Board
DEW	Directed Energy Weapons
DOD	Department of Defense
E2I	Exo/Endo Interceptor
GPALS	Global Protection Against Limited Strikes
GSTS	Ground-based Surveillance and Tracking System
HOE	Homing Overlay Experiment
HTK	Hit-To-Kill
ICBM	InterContinental Ballistic Missile
KKV	Kinetic Kill Vehicle
LACE	Low-Power Atmospheric Compensation Experiment
LDS	Limited Defense System

Audit Report Number 94-084, 14 April 1994, p. 2.

[99]Advanced Interceptor Technology Program, Lawrence Livermore National Laboratory, National Nuclear Security Administration, "Genius Sand: A Miniature Kinetic Vehicle Technology Demonstration for Midcourse Counter-Countermeasures and Submunition Kills," Prepared for the Ballistic Missile Defense Organization and the U.S. Army Space and Missile Defense Command Space and Missile Defense Technical Center, 5 November 2001, pp. 4-5.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

LLNL	Lawrence Livermore National Laboratory
MATTR	Mid and Terminal Tiers Review
MDA	Missile Defense Act
PALS	Protection Against Limited Strikes
PBD	Program Budget Decision
RV	Re-entry Vehicle
SBAS	Space-Based Architecture Study
SBI	Space-Based Interceptor
SDI	Strategic Defense Initiation
SDIO	Strategic Defense Initiation Organization
SDS	Strategic Defense System
SSTS	Space-based Surveillance and Tracking System
UVPI	UltraViolet Plume Instrument

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Kurdish Demand for Statehood and the Future of Iraq

Hadi Elis[1]
Toronto, Canada

The author identifies the Kurds as an historically distinct people, who speak a non-Semitic, Indo-European language – Kurdish – with historical traditions very different from those of the Sunni and Shiite Iraqi Arabs, and sympathetically traces the history of the efforts of the Kurdish community in Iraq to achieve a degree of self-determination and autonomy/independence.

Key Words: Iraq; Kurds; Arabs; Mosul; Oil; Turkey; Ottoman Empire; Iran; Syria; Shia; Sunni; Ba'athists; Saddam Hussein; Gulf War; Mustafa Barzani; KDP; PUK.

The future of Iraq has become an international issue for the second time in history. The first occasion was following the break-up of the Ottoman Empire, when most of the indigenous peoples of the Middle East who had been liberated from Turkish rule by British forces during World War I received some degree of independence. The Kurds, however, did not share in that freedom when the boundaries of the new Kingdom of Iraq, Republic of Syria, and Republic of Turkey were created.[2] Today, because of events in recent years, the Kurdish region in Iraq is effectively self-governing, and the future of Iraq is extremely uncertain at the time of writing. Indeed, the possibility of its ultimate dismemberment has already been mooted in political and academic circles.[3]

---

[1]Address for correspondence: hadielis@hotmail. com. The author is a Kurdish national living in the United States. Events will undoubtedly overtake this article (updated to June 10, 2004) before it can appear in print, but the material facts that it contains, and the insight it reveals into the attitude of Kurdish nationals seeking autonomy, will still serve to throw light on events in Iraq no matter what further developments occur in the interim.

[2]David A. Corn: "The Men who put the Kurds into Iraq: Percy Cox and Arnold T. Wilson", *Kurdistan Times*, Bi-Annual political journal, no 3, Dec. 1993, page 88 to 109

[3] James M. Prince: "A Kurdish State in Iraq", *Current History*, January 1993

Peter W. Galbraith, "Kurdistan and a Federal Iraq: How the Kurds Created Facts on the Ground", accessed at www.Kurdmedia.com/reports.asp?id=1734 in November 20, 2003.

Shlomo Avineri: "Three Iraqs, not one" Oct. 23, 2003, at www.kurdistanobserver.com

Munther Al Fadhal, "The Federalism and the Future of Iraq", paper presented to conference on Iraqi-Kurdistan at University of Southern Denmark, 30th Nov. – Dec 1st 2002, Odense, Denmark

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The post-World War I international agreement on the future of the peoples who had been held captive within the Ottoman Empire left the Kurds divided among four different countries. The Kurds are the fourth largest nation in the Middle East with a population in excess of 30 million; their distinct culture separates them from the Turks, Iranians, Iraqis and Syrians who surround them; and they occupy an ethnically homogeneous territory, which has historically and geographically been called Kurdistan – the land of the Kurds. Despite this distinct identity, they were denied statehood at that time, and still suffer the consequences.

Although Kurds in Turkey, Iran and Syria are still dominated by the majority populations of those countries, the position of the Kurds in Iraqi is in a process of gradual transformation, as they gain further degrees of independence. Previously made up of six Iraqi administrative provinces, a geographically distinct Kurdish region has been governed by a Kurdish *de facto* government since 1992.

The history of Iraq offers one of the best examples of a "failed state." The creation of the State of Iraq may have seemed to have a geographical justification, but it overrode national and ethnic considerations. As David Corn wrote, "When the British incorporated the Kurdish lands of the former Ottoman Mosul Wilayet into the Iraqi state which they set up after World War I, they made what surely must be

---

Accessed at www.minshawi.com/The-Federalism-and-the-future-of-Iraq.htm

Brendan O'Leary: "Multi-national Federalism, Federacy, Power-sharing & The Kurds of Iraq", paper presented to the conference: "Multi-nationalism, Power-sharing and the Kurds in a New Iraq", Cafritz Foundation Conference Center, George Washington University, September 12, 2003.

John C. Hulsman, and James Phillips, "Post-war Political Settlement in Iraq", *Journal of South Asian and Middle Eastern Studies*, Vol.: XXVI, No 2, Winter 2003.

Sophia I. Wanche: "The Kurds in a post-Saddam Iraq", accessed over the Internet at www.krg.org/Dr.Sophie%20-%20paperfrom%20Denmark%20conference.pdf

Anthony H. Cordesman: "The Kurdish Issue and the Coming War: Issues for War and Reconstruction", www.csis.org/burke/mb/iraq_kurdishreconstruction.pdf

Report by International Crisis Group, No 10, Amman/Brussels, 19 March 2003: "War in Iraq: What's Next For The Kurds", accessed at www.reliefweb.int/library/document/2003/icg-irg-19mar.pdf

Mohammed Sabir: "The Future of the Kurds in Post-war Iraq", 14 June 2003, accessed at www.epic-usa.org/epicevents/MohammedSabirTalkingPoints2.pdf

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

counted as one of history's greatest mistakes."[4] In support of this statement he further notes that "Kurdish revolts in the 1920s, the 1940s, and in the 1960s, 1970s and in 1980s, undermined the political stability of the Iraqi state and drained its resources. Brutal Iraqi government repression, which reached genocidal proportions in the 1970s and in the 1980s, brought immense suffering upon the Kurds. A *de facto* Kurdish state that has existed since the summer of 1990, in what is still formally termed Northern Iraq, stands as testimony to the Kurds' rejection of the decision to include them into the newly invented state of Iraq, a decision made, not by them, seven decades earlier."[5]

1) Historical Background:

The Kurds are an ancient people, descended from the Medes of historic fame. They speak an Indo-European language that is very different from Arabic or the other Semitic languages. The vast Kurdish homeland of about 230,000 square miles is approximately two and a half times the size of Great Britain. Kurdistan consists basically of the mountainous areas of the central and northern Zagros, the eastern two-thirds of the Taurus and Pontus, and the northern half of the Amanus ranges. The symbiosis between the Kurds and the mountains has been so strong that they have become synonymous: Kurdish homes end where the mountains end, or according to the most famous Kurdish saying, "the Kurds have no friends but mountains."

Although once powerful, the inhabitants of this region came under the sway of the Assyrians, and today the Kurdish Calendar counts the current year as 2616, up to March 21st, the Kurdish New Year, called Newroz in Kurdish, which starts the year 2617. Newroz means New Day in English. This has its origins in the Legend of Kawa, recalling an event associated with the Kurdish achievement of freedom from the Assyrian Empire in 612 BC. In the centuries that followed, the Kurds fell under the control of first the Persians and then the Turks, and the historic lands of Kurdistan were divided between the Ottoman Empire and the Persian Empire in 1514, as Ottoman Kurdistan (incorporating the

[4]David A. Korn, "The Men Who Put the Kurds into Iraq: Percy Cox and Arnold T. Wilson", in *Kurdistan Times* No 3, 1993, pages 88- to 109. *Kurdistan Times*, a biannual political journal published in USA, Fairfax, Virginia, by Mustafa Al- Karadaghi, Director of Kurdish Human Rights Watch.

[5] ibid.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Kurdish populations in what is today called Turkey, Syria and Iraq), and Persian Kurdistan. It was the former Ottoman Wilayet of Mousul (Mosul) that the British incorporated into Iraq in 1918.

Although they accepted Islam from their neighbors, the Kurds never became absorbed into either the Arab, Turkish or Iranian populations adjacent to them, and have preserved their identity down to the present day. Indeed, they experienced lengthy periods of self-rule until eventually falling under the control of the Ottoman Empire, with revolts in the Kurdish principality of Bedir-Khan Beg being suppressed by the Turks as late as 1847, and Bitlis in 1849. A Kurdish uprising in 1878 under Sheikh Obeidallah was suppressed by the Ottomans in 1881.

Fresh attempts were made to establish a national Kurdish movement in 1908-1910; and after the British drove the Turks out of Mesopotamia, the Kurds, led by Sheikh Mahmud, in 1918 presented the British with a document signed by forty tribal chiefs demanding the recognition of the Kurds as a separate people in accordance with promises made by the British to the diverse peoples who had been oppressed by the Ottomans.

But instead of granting independence or even autonomy to the Kurds, the new boundaries that were established by international treaty after World War I divided the ancient homeland of the Kurds among four separate states: Turkey, Iran, Iraq, and (with a much smaller Kurdish population) Syria, the latter two being placed under the governance of Britain and France, respectively. In Iraq, the disappointed Kurds conducted a revolt against the British-directed Iraq government from 1919 until 1930, when an Anglo-Iraq treaty transferred *de facto* as well as *de jure* political control of Iraq to an Arab majority government.

Divided among major states whose governments – in each case representing a non-Kurdish majority population – sought to create Turks, Persians and Arabs out of Kurds, the Kurdish people resisted and fought for the survival of their own nation. In the early years the conflict remained a regional issue, but by the 1970s the plight of the Kurds had become a problem of significance in international affairs.

The historic homeland of the Kurds today remains divided among five major states, with the largest portion in Turkey (43%), and the remainder in Iran (31%), Iraq (18%), Syria (6%), and Russia (2%).

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Although the exact size of the Kurdish population is unknown, since none of the countries in which they live will allow a census to be taken of them as Kurds, they would appear to be the fourth largest ethnic group in the Middle East, after the Arabs, Iranians, and the Turks. Although no census of the Kurdish population has been authorized, or indeed allowed, many experts on the issue believe that the Kurdish population numbers around 35 to 40 million. The distribution figures agreed on, on this basis are: in Turkey (52%) around 22 million; Iran (24%) around 10 million; in Iraq (18%) around 6 million; in Syria (6%) around 2 million; and approximately 2 million in other Middle Eastern countries, Russia, and Central Asia.[6] In addition, the more recent Kurdish refugees and immigrant communities in Europe, Australia, and North America now amount to over 2 million.

Until 1926, the Kurdish armed resistance against the British move that incorporated Kurdish land into the newly formed State of Iraq was headed by Shaik Mahmud Berzenji. Although he was unsuccessful in his fight, he is considered by many to be the father of Kurdish nationalism in Iraq. "In Southern Kurdistan," reported Sir Arnold T. Wilson, who was British Political Officer in Baghdad at the time, "four out of five people support Sheikh Mahmoud's plans for an independent Kurdistan".[7] And when, in 1932, Britain declared Iraq a free state and supported its membership in the League of Nations, this move was also made without the support of the Kurdish people who had been incorporated into the new and artificial "nation state," which was by no means a nation in the ethnic sense.

At various times both the British and the Iraqi governments issued statements that theoretically recognised Kurdish rights. In December, 1922, "an Anglo-Iraqi Joint Declaration to the Council of the League of Nations" recognized a Kurdish right to a degree of autonomy in Iraq: "His Britannic Majesty's Government and the Government of Iraq recognize the right of the Kurds living within the boundaries of Iraq to

[6]*Kurdish Studies*- an international journal, Vol. 5, No 1 &2, Spring-Fall 1992, published semi annually by Kurdish Library in New York. Kurdish Heritage Foundation, 345 Park Place, Brooklyn 11238, New York, USA.

[7]Mehrdad R. Izady, *The Kurds: A Concise handbook*, Taylor and Francis, 1992, USA, page 64.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

set up a Kurdish Government within those boundaries and hope that the different Kurdish elements will, as soon as possible, arrive at an agreement between themselves as to the form which they wish that Government should take and the boundaries within which they wish it to extend and will send responsible delegates to Baghdad to discuss their economic and political relations with His Britannic Majesty's Government and the Government of Iraq".[8] This statement appeared to contradict previous British promises given to the Hashemite King Faysal, who had been installed as King of Iraq; but High Commissioner Sir Percy Cox "privately assured Faysal that this declaration 'in no way implied separation politically or economically of Kurdistan from Iraq'".[9]

From 1932 until 1946 Molla Mustafa Barzani, the founder and leader of the Kurdistan Democratic Party (KDP), continued the armed struggle of the Kurds against the Iraqi government, with support from the Soviet Union which was interested in using the Kurds to challenge the influence of the Western powers in the oil- rich Middle East, especially because oil-rich Mosul province was a part of the historic Kurdish homeland. However, due to British and U.S. support for the Baghdad Government (assisted by the Persian Government, which destroyed the short-lived Kurdish Republic of Mahabad) Barzani was forced to flee Iraq and take refuge in the USSR, where he remained until late 1958.

Mustafa Barzani returned to Iraq in 1958, when General Abdul Karim Qassim, heading a *coup de etat* of "Free Officers," seized power, overthrew the Hashemite Arab monarchy which had been established by the British, and declared a Marxist-aligned Republic of Iraq. The new Government at the same time declared Kurdistan "one of the two nations of Iraq." Between 1958 and 1963 Mustafa Barzani negotiated with that government, seeking a solution to the Kurdish issue. However, when Qassim was overthrown by the Arab Ba'athists, and Abdul Selam Arif emerged as the new President of Iraq, these negotiations came to an end.

The new Sunni-backed Arab Ba'athist government conducted a

[8]David McDowall: *A Modern History of the Kurds*, I. B. Tauris, UK, 1996, page 169
[9]ibid

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

series of major offensives against the Kurds in 1965, 1966 and 1969, trying to force Barzani to submit to Ba'athist rule. Today it is the broadly accepted pan-Arab position to refuse territorial and ethnic rights to the Kurds.

The only time the Kurds succeeded in obtaining any agreement with an Arab-dominated Baghdad government was on March 11, 1970, when they obtained a promise of autonomy for Kurdistan. However, the government never implemented this promise. Rather, subsequent Iraqi governments made tactical concessions to gain time and stop the Kurds from benefiting from any political and military advantages they had acquired by armed insurrection. As Peter Sluglett wrote, "Almost immediately after the publication of the Manifesto, the government's bad faith became apparent. Large numbers of families were forcibly removed from their homes to change the ethnic balance of particular areas, especially around [oil rich] Kirkuk, which the Kurdish leadership has insisted should form part of the Kurdish area and which the government wanted to retain for itself."[10]

Then, on September 29, 1971, less than a year after signing the agreement on Kurdish autonomy, Mustafa Barzani escaped an assassination attempt.[11] It became clear to Barzani and the KDP that the Ba'athist party had no intention of honoring their agreement to grant autonomy to the Kurds. Indeed, when a revised version of the law was offered later in the same year; it granted the Kurds less than half of the Kurdish land in question, with no mention of any sharing arrangements for oil sales revenues.

In 1973, Saddam Hussein forced Ba'athist president Al-Bakr to resign and became the president of Iraq himself. Fighting broke out again, and this time the U.S., Iran, and Israel supported the Kurds because of Iraq's close relations with Russia. Iran, the U.S. and Israel continued to support Mustafa Barzani and the Kurds until the Iranian Shah Reza Pahlavi signed an agreement with Saddam Hussein and Iraq

---

[10]Peter Sluglett: "The Kurds", chapter 9, in *Saddam's Iraq, Revolution or Reaction*, published by Committee Against Repression and for Democratic Rights in Iraq, Zed Books, London, 1989, page 196.

[11]Mehrdad R. Izady: *The Kurds: A Concise handbook* Taylor and Francis, 1992, USA ibid, page 68

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

conceded the right of the Iranians to the use of Shatt-al-Arab waterway in 1975.

Without support from Iran, the U.S. or Israel, the Kurdish forces were brutally crushed. U.S.-Kurdish relations were seriously damaged; and this incident has proved to be the main grounds for the subsequent Kurdish distrust of the U.S. After the collapse of Kurdish resistance, Mustafa Barzani escaped to Iran. Later, he migrated to the U.S., where he died in exile in 1979.[12]

In 1976, Jalal Talabani, a renowned Kurdish guerrilla commander and politician, formed the Patriotic Union of Kurdistan (PUK), one of the two main political parties in Iraqi Kurdistan today. The Kurdish struggle for self-determination resumed when the KDP and PUK returned to Kurdistan in 1979. The same year, revolution in Iran brought the Ayatollahs to power. This was seized by Saddam Hussein as an opportunity to terminate the 1975 Algeria Agreement concerning the use of the Shat-al-Arab waterway and to declare war on Iran.

During the Iraq-Iran war, the U.S. became the main supporter and arms supplier to Iraq. In doing this, the U.S. was minding a strategic interest: seeking to prevent the spread of the Islamic Revolution to the rest of the Middle East. Most importantly, America aimed to protect the Gulf Emirates and Saudi Arabia.[13]

Concerned about Kurdish attempts to take advantage of this conflict and win autonomy, in 1987 the Iraqi Army started the infamous ANFAL Campaigns, and from March 16 to 22 in 1988 used chemical weapons on Kurdish forces and civilians as well as on the Iranian army.[14] The attack on the city of Halabja was the most serious, killing some five thousand people while leaving an estimated ten thousand victims alive and suffering.

However, in August of 1990, Iraq made the historic mistake of

---

[12]David A. Corn, "The Last Years of Mustafa Barzani", *Middle East Quarterly*, June 1994, Vol. 1, No2. Page 13- 27

[13]http://www.casi.org.uk/info/usdocs/usiraq80s90s.html, U.S. Diplomatic and Commercial Relationships with Iraq, 1980 – 2 August 1990 accessed at December 2003.

[14]Physicians for Human Rights: "Winds Of Death: Iraq's Use of Poison Gas against its Kurdish population", Report of a Medical Mission to Turkish Kurdistan by PHR accessed at: www.phrusa.org/research/iraq/winds.html in September/October 2003.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

invading Kuwait; measures that were to lead to the downfall of Saddam and the collapse of the Iraqi state were set in motion. During the liberation of Kuwait, the Kurds and the Shiites thought that the U.S. would help them if they rose up against Saddam Hussein, but when Kurdish fighters attempted this, Iraqi helicopter gun ships massacred Kurdish civilians by the thousands, and defenseless Kurds fled to the Turkish and Iranian borders by the millions. This incident created one of the largest refugee movements in the 20th century; around 1.2 million encamped at the Turko-Iraqi border, and 1.7 million at the Iraq-Iran border.

2) 1991 Humanitarian Intervention in Iraqi-Kurdistan and the Beginning of the End of Hussein's Iraq[15]

U.N. Security Council Resolution 688 allowed for humanitarian intervention in the Kurdish refugee crises, but did not specifically authorize any military action to assist the Kurds. In April, 1991, military forces from eleven countries implemented Operation Provide Comfort, intended to give security and humanitarian assistance to Kurdish refugees in camps along the Iraq-Turkey border. Dozens of international humanitarian organizations joined the effort to repatriate refugees by providing transportation, food, medical services, and clean water.

---

[15]Ruth E. Gordon: "Humanitarian Intervention by the United Nations: Iraq, Somalia, and Haiti", *Texas International Law Journal, Vol.: 31, No 1, page 43 – 56*

Harvard International Review, "Hope Restored: Benefits of Humanitarian Intervention, Interview With Massoud Barzani", Fall 1993, page 18, 19, and 63.

David Keen, "Short-term interventions and long-term problems: the case of Kurds in Iraq", in *The Politics of Humanitarian Intervention*, Chapter 5, page: 167-186, edited by John Harris, Pinter Publications, 1995, USA.

Birthe Hansen, "Operation Desert Storm", *Unipolarity and The Middle East*, chapter 10, page 149-161, Curzon Press, 2000, UK.

Oliver Ramsbotham & Tom Woodhouse: "Introduction: Humanitarian Intervention in Iraq", page 69-85, *Humanitarian Intervention in Contemporary Conflict*, Polity Press & Blackwell, 1996, UK.

CPT. Michael E. Harrington, "Operation Provide Comfort: A perspective in International Law", *Connecticut Journal of International Law*, Vol.: 8,, page: 635 – 655

Eugene Cotran, "The Establishment of a Safe Haven for the Kurds in Iraq", in *International Legal Issues Arising Under the United Nations Decade Of International Law*, Ed. By Dr. Najeeb Al-Nauimi, and Richard Meese, published by Martinus Nijhoff Publishers, The Hague, Netherlands, 1995, page: 855- 869.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The 1992 Kurdish Elections and the Formation of a Regional Government[16]

By October 1991, the government of Iraq withdrew from administration of the Kurdish region. Since that time, the two main forces in the Kurdish region have been the already mentioned Kurdistan Democratic Party (Parti Demokrati Kurdistan-Iraq) or KDP, and the Patriotic Union of Kurdistan (Yekiti Nishtimani Kurdistan) or PUK.

The KDP is the larger of these two political parties, with some 10,000 fully-armed men and a further 40,000 that can be mobilized on short notice. It is headquartered in the town of Salahaddin and is currently led by Masud Barzani, a son of Mustafa Barzani. The PUK had been formed in Syria in 1976 when Jalal Talabani, who had originally worked closely with Mustafa Barzani, split from the KDP.

The first regional elections were held in mid-1992 and resulted in the formation of the first Iraqi Kurdish Government and Parliament. On October 4, 1992, the Iraqi Kurdistan National Assembly made its first declaration: a unanimous decision to establish a federalist system as the basis for any future relationship with the government of Iraq.[17] Since then, Iraqi Kurdistan has enjoyed *de facto* autonomy and has functioned as a *de facto* state. However, opponents of the Kurdish movement, disturbed at the successful collaboration of the Kurdish people in maintaining their *de facto* state over the past decade or so, launched a suicide attack at a national gathering, killing several prominent Kurdish leaders, including the Deputy Prime Minister and KDP Secretary-General, Sami Abdurrahman.

3) The Issue of National Self-determination and the Recognition of a Kurdish *de facto* State

As Scott Pegg has written, "A *de facto state* exists where there is an organized political leadership which has risen to power through some degree of indigenous capability; receives popular support; and has achieved sufficient capacity to provide governmental services to a given population in a specific territorial area, over which effective control is

[16]Falaq Al-Din Kakai, MP in Kurdistan National assembly 1994, and "The Kurdish Parliament", in *Iraq Since The Gulf War: Prospects For Democracy*, Ed. By Fran Hazelton for CARDRI, Zed Books, UK, 1994, page:118- 133

[17] http://www.kurdistan.ws/kurdistan3.html, accessed in September and October, 2003.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

maintained for a significant period of time. The *de facto state* views itself as capable of entering into relations with other states and seeks full constitutional independence and widespread international recognition as a sovereign state."[18]

Since April 1991 the Kurdistan *de facto state*[19] has been running its own affairs. Universities have been opened, the permits of radio and TV stations regulated, municipal and parliamentary elections held, police and security forces created, a central bank instituted, a national flag created, a national anthem composed, and a capital city established. The Kurdistan *de facto state* has a government called the Kurdish Regional Government (KRG), and has a Cabinet (Prime Minister and Ministries of Education, Finance and so on). Furthermore, the KRG has a web site, www.krg.org, which provides detailed information about their achievements.

These are all the conditions required to justify statehood as indicated in the Montevideo Convention on the Rights and Duties of States, signed Montevideo 26 Dec. 1933, Article 1):

a) a permanent population

b) a defined territory

c) a government

---

[18]Scott Pegg: *International Society and The De Facto State*, Ashgate publishing ltd, 1998, UK, page 26

[19] Michael M. Gunter: "A *de facto* state in Northern Iraq", *Third World Quarterly*, Vol. 14, No 2, 1993

David Aquila Lawrence: "Iraqi Kurds enjoy a de facto state" *Christian Science Monitor*, Wednesday, May 3, 2000, accessed over the Internet at Sept/Oct. 2003. http://search. csmonitor. com/durable/2000/05/03/p6s1. htm

Karl Vick, "Turkey lashes out at Kurdish state proposal" September 28, 2002,

Karl Vick: "Turkey lashes out at Kurdish State proposal", reporting from Istanbul, September 28, 2002, "Even though they say, 'We are against founding a Kurdish state,' a de facto state is already on the way to being formed," Prime Minister Bulent Ecevit said on Wednesday, after the draft constitution's approval. "If this becomes official, there will be serious problems." Accessed over the Internet at:

www.theage.com.au/articles/2002/09/27/1032734325927.html

Author not reported, "Iraqi Kurdistan: State within a state within a state", accessed over Internet at http://ccasls.concordia.ca/contents/iraqi.htm in October 2003.

Gerard Chailand: "Paradox of Iraqi Kurdistan", September 2001, Iraqi Kurdistan Dispatch www.ikurd.info/chailand-e.htm

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

d) the capacity to enter relations with other states (The Kurdistan Regional Government maintains representative offices in the USA, UK, Germany, France, Scandinavia and maintains contact offices with the United Nations and the European Union.)[20].

The Iraqi Kurds have faced genocide, mass depopulation and deportation in Iraq. All of the above justify the claim for statehood.[21] With a distinct ethnicity, culture, language, civilization and history, the Kurdish people can satisfy any moral criteria that may be demanded to justify statehood and self-government.[22]

Federalism and multicultural states are, in simplistic terms, well-intentioned ideas. However, the history of the Kurds, divided between Turkey, Iran, Iraq and Syria, has been characterized by oppression, genocide, and institutional discrimination. As a result, establishment of a sovereign Kurdish nation-state is the deep desire of the overwhelming majority of Kurds: a space in which all Kurds are free from discrimination and oppression and can determine their own national affairs.

The creation of a Kurdish nation-state, incorporating all the separated portions of the Kurdish population, would arguably have a positive effect on regional stability, since the Kurdish question would no longer exist as a source of instability and insecurity. This new nation-state would be viable in economic terms thanks to the oilfields located in historically Kurdish territory around Mosul, now called Northern Iraq. Failing that, as Qubad Talabani, the son of Kurdish leader Jalal Talabani, recently said under pressure from the U.S. to reach an agreement with the Iraq Arabs, the Kurds are agreeable to: "a voluntary union with Iraq, but this voluntary union comes with the precondition that the system of government in Iraq is both federal and democratic,

---

[20]Ian Brownlie, *Principles of Public International Law* fifth edition, Oxford University Press, 1999, UK, page 70.

[21]Gregory J. Ewald: "The Kurds Right To Secede Under International Law: Self-Determination Prevails Over Political Manipulation", *Denver Journal of International Law and Policy*, Vol. 22, No. 2, 3, page 402.

"other legal and political considerations also lead to the conclusion that the balance is in favor of allowing Kurds a right to secede. Nonintervention and territorial integrity are hollow principles if they allow a state to systematically exterminate an entire sub-culture of its population. Self-determination outweighs any incompatible principles, especially when there is a violation of an established *jus cogens* i. e. genocide, which is inherently unjustifiable.:" Page 402.

[22] Mehrdad R. Izady, page 197

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

allowing us to maintain the local control we have had for more than a decade."

In their present negotiations concerning the future of Iraq the Kurds demanded that if they were to continue to be regarded as a part of Iraq they must be allowed to preserve a substantial amount of the autonomy they currently have, and be entitled to refuse to recognize inside Kurdish territory any laws passed in Baghdad that they regard as unacceptable. They also demanded the right to retain their own militia, which presently numbers some 60,000 men; and that the deliberate settlement of Arabs in Kurdish territory by previous Arab governments in Baghdad be reversed. As we will see, some of these were granted when a provisional agreement was reached on February 28, 2004.

4) The Iraqi Arab Stance on the Future of Iraq and Kurdish Autonomy

a) The Shia Position[23]

Although there are several references to the Kurdish issue and federalism in Iraq in the Declaration of Shia, the Shia position has been to retain the unitary structure of Iraq as opposed to re-structuring Iraq based on ethnic and demographic lines. The Shia favor the creation of such administrative units as an alternative to partition and separation, and as Arabs have opposed Kurdish claims to national self-determination, and even the Kurdish right to autonomy in a federally-based Iraqi state. It is evident to any judicious observer that Iraqi Arabs wish to retain control over the oil fields that lie in historic Kurdish territory.

b) The Sunni Arab Position

The Sunni Arabs, and especially the Arab Ba'ath Party, were the most powerful group under the Ottoman Empire. Under the Iraqi monarchy, the Sunni held supreme power after the Ba'ath party gained total control of the Iraq government. Today, however, they are a disaffected group in Iraq under the US occupation, but they nevertheless remain strongly opposed to Kurdish self-rule.

[23]http://www.defenddemocracy.org/usr-doc/DECLARATION-OF-SHIA-OF-IRAQ.doc. Accessed in October 2003.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

c) Iraqi Communist Party[24]

The Iraqi Communist Party (ICP) supports a Kurdistan Federal region and the decentralization of Iraq. According to the ICP, the Kurdish national question has its own specificity and cannot be solved by the grant of purely local administrative authority. Rather, it is a national question, which must be dealt with in its entirety. The ICP refers to Kurdish autonomy as a "federal right" and says that it should be promulgated on the basis of political and national specificity.

5) Regional and International Positions on the Future of Iraq and Solution to the Kurdish Question

a) Turkey's Position[25]

The Turkish government's primary fear is that a conflict in Iraq will create the conditions necessary for Iraqi Kurds to declare independence. They believe that this would inspire Kurds in that part of Kurdistan which lies inside the borders granted to Turkey to fight harder for their own independence. They fear the possibility that such an independence movement could lead to the formation of a greater Kurdistan that would incorporate territory of which large parts are at present occupied by Turkey, Iran, Syria, and even Armenia.[26] Therefore, in order to maintain its hold on Kurdish territory within the Turkish border, the Turkish government seeks to contain any Kurdish nationalist movement in northern Iraq[27] as well as control and contain the Kurdish nationalist

---

[24]http://www.iraqcp.org/framsel1/003070icpleadershariq.htm, Interview with Iraqi Communist Party Leader – Arabic daily *Al-Sharq Al-Awsat,* 23 June 2003

[25]Carol Migdalovitz: "Iraq: The Turkish Factor" CRS Report for Congress, October 31, 2002:

www.fcp.state.gov/documents/organization/14957.pdf

John B. Alterman: "Not in My Backyard: Iraq's Neighbors' Interests", *The Washington Quarterly*, Summer 2003 page 149-160

Civilitas Research Ltd.: "Turkey and Iraq Conflict: Responses and Implications", October 2002

Accessed over the Internet at:

www.civilitasresearch.com/reports/files/turkey-Iraq%20Report.pdf

Report by International Crisis Group, No 10, Amman/Brussels, 19 March 2003: "War in Iraq: What's Next For The Kurds", accessed at www.reliefweb.int/library/document/2003/icg-irg-19mar.pdf

[26]Civilitas Research, "Turkey and Iraq Conflict: Responses and Implications", October 2002, page 9.

[27]Robert Olson, "The Creation of a Kurdish State in the 1990's?" *Journal of South Asian*

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

movement in their own country.

Turkey's policies toward the Kurdish nationalist movement became clear in the aftermath of the Gulf War:

1) Exercise influence over the KDP and PUK in northern Iraq.
2) Compel the KDP and PUK to end all support for Kurdish nationalist organizations seeking self-government in Turkey.
3) Isolate the Kurdish population and Kurdish nationalist groups in Turkey from those in Iraq as much as possible, even to the extent of creating a *cordon sanitaire* by demolishing and evacuating Kurdish villages close to the Iraq border. This no-man's-land was similar to the one Iraq created along its borders with Turkey and Iran in the 1980s.[28]
4) Use whatever military force necessary to eliminate the Kurdish nationalist movement in Turkey (the PKK, now known as the Kongra Gel), both in northern Iraq and in Turkey.[29]

Turkey has stated on many occasions during the recent Iraq crisis that it will even consider a military invasion of Iraqi Kurdistan in order to prevent Kurdish independence from materializing. However, this would only increase the complexity of an already complicated situation. It may safely be said that if such an invasion occurred:

1) Turkey would not be allowed by the international community, U.N., E.U. and Middle Eastern countries to annex Iraqi Kurdistan.
2) Turkey would be drawn into a long-term conflict in both parts of Kurdistan.
3) Turkey's domestic politics and economics might be fatally damaged.
4) Turkey's regional standing would be harmed.
5) Turkish-E.U. relations would be seriously damaged.

Ironically, the peace talks that would be likely in the aftermath of such an event would promote international recognition of the plight of the Iraqi Kurds and might to some extent strengthen their claim for

---

and Middle Eastern Studies, Vol. XV, No. 4, Summer 1992, pages 1 to 25. page 22.

[28]KHRP (Kurdistan Human Rights Project) and Medico International: "The Destruction of Villages in South-East Turkey", June 1996, Report Summary – By 1996 close to 3000 villages have been evacuated, resulting in 2,5 – 3 million internally displace persons.

[29]Robert Olson, ibid, page 23

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

statehood.

b) Iran's Position

Iran, which also occupies a substantial portion of the traditional Kurdish homeland, has similar concerns to those of Turkey, and also fears that the establishment of an autonomous Kurdish province in Iraq would encourage Kurds living in those parts of the ancient Kurdish homeland that fall within today's Iranian boarders to seek a similar degree of liberty. Also, Iran is unhappy to see the U.S. on its borders. The U.S. military is already positioned to the east of Iran, in Afghanistan; and Iran feels that American forces are surrounding it. The Iranian government is therefore deeply concerned that an autonomous Kurdish government in northern Iraq might willing offer the U.S. military bases in the belief that these would offer them some security against any possible future threats from their non-Kurdish neighbors.

c) Syria's Position

Syria's stand is similar to Iran's. It, too, has a Kurdish question; but it has reacted differently, and instead of attempting to assimilate the Kurds, it has stripped large numbers of them of citizenship. It is believed that around half a million Kurds are stateless in Syria. Of the various countries that occupy parts of the divided Kurdistan, only Syria has adopted this practice.[30]

d) The European Union's Position

The European Union has committed itself to the sovereignty and territorial integrity of Iraq, but appears to see federalism as a possible solution to the Kurdish problem in Iraq.[31]

e) The U.S. position

The U.S. is committed to the sovereignty and territorial integrity of Iraq's present borders, but it has come to accept the Kurdish claim to a degree of local autonomy if only because the Kurds already have

---

[30]http://hrw.org/reports/1996/Syria.htm accessed at January, 2004. Human Rights Watch Report, October 1996 Vol. 8 No 4 (E).

[31]Ken Degerfelt: "Iraq and the Iraqi Kurdish Issue: European Perspectives", www.american.edu/academic.depts/acainst/cgp/Washlong.pdf, Advisor to, Directorate General for External Relations European Commission, speech presented in personal capacity.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

autonomy in what is still called northern Iraq. But Turkish and Saudi concerns remain important in Washington's decision-making circles. The main reason for U.S. involvement in Iraq following the overthrow of Saddam Hussein has moved from the elimination of weapons of mass destruction to regime change and now to democratization. Re-structuring the Iraqi state has various fundamental obstacles, among which the attitude of the Shia and the wishes of the Turkish government are important factors.

The success of the stated U.S. foreign policy for the Middle East – to advance democracy and stability everywhere from Afghanistan to Sudan – will be closely correlated with the ability of America to reach its vision of a peaceful Iraq within its current borders. Furthermore, the armed resistance put up by both Sunni and Shi'ite Arab factions, radical Islamists, and Ba'athists, will remain an important factor affecting the viability of American goals in this entire region.[32]

f) The U.N.'s position

The U.N. is also committed to sovereignty and the territorial integrity of Iraq, but it has a traditional stand on the Kurdish issue – staying silent. The U.N. has never seriously involved itself in the issue of Iraqi Kurdistan or the Kurds in general.[33] While, the U.N. is involved in humanitarian aid: providing food, medical supplies and education; and has now endorsed the establishment of an interim government in Iraq, the question of Iraqi elections. Kurds are extremely disappointed that its most recent statement of support for a transitional government in Iraq omits all reference to Kurdish autonomy.

Conclusion

Federalism was first seriously broached as a solution to the Kurdish problem in Iraq following the Gulf War in 1991. On October 4, 1992 the Parliament of the *de facto Kurdish state* in northern Iraq declared Iraqi Kurdistan a constituent state in a federal Iraq.[34] This was a unilateral

[32]Anthony H. Cordesman, "Iraq and Conflict Termination: The Road to Conflict Termination", revised version, July 28, 2003, accessed over the Internet in Sept. 2003: www.csis.org/features/Iraq_ConflictTerm.pdf

[33]Alexis Heraclides, *The Self-Determination of Minorities in International Politics*, Frank Cass, 1991, Great Britain, page 145.

[34]Michael M. Gunter, "Kurdish Future in a Post-Saddam Iraq", *Journal of Muslim Minority*

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

action watched silently by the international community and the U.N. However, with the passage of time its recognition among the scholars and state officials around the world has been growing.

It is the opinion of this author that the Kurds are morally entitled to the right to self-determination and even a right to secession.[35] On the basis of recent practice, the Kurdish legal position is strong, although presenting practical obstacles.[36] Given Kurdish numbers, the strong sense of Kurdish self-identification and association with a specific homeland territory over a period of at least 2600 years, and given the consistent Kurdish experience of abuse and discrimination within the states that have governed this region, all the moral justifications for claiming a right of self-determination exist:[37]

The Kurdish state territory and its appurtenances (airspace and territorial sea), together with its government and the population within its frontiers, comprise the physical and social manifestations of the primary type of international legal person.[38] The Kurds living in Iraq have demonstrated that they are capable of functioning as an independent state[39] even under harsh circumstances, and the effective occupation of the Kurdish territory by a Kurdish government affirms possession and gives sovereignty rights to the territory.[40] In March 2004 an agreement appeared to have been reached on a provisional constitution that granted the Kurds the right to retain their own armed militia and a substantial measure of autonomy, It is noted that this transitional agreement did not include the Kurdish claim to have those traditional Kurdish lands that were annexed by Saddam Hussain returned to

---

Affairs, Vol.: 23, No. 1, April 2003, page 9 to 23.

[35]Gregory J. Ewald, "The Kurds Right to Secede Under International Law: Self-Determination Prevails Over Political Manipulation", *Denver Journal of International Law and Policy*, Vol.: 22, No 2, 3, 1994, pages 375 to 407. This statement is at page 402.

[36]Richard Falk: "Problems and Prospects For The Kurdish Self-Determination After The End Of The Gulf And Cold Wars", *Michigan Journal of International Law*, Vol. 15, No. 2, Winter 1994, page 591 to 603. This statement is at page 602

[37]Richard Falk, page 603

[38]Ian Brownlie, "Territorial Sovereignty, Part III, Chapter VI, 2. Sovereignty and Jurisdiction" page 105, 106, in *Principles of Public International Law*, fifth edition, Oxford University Press 1999, UK

[39]Gregory J. Ewald, supra note 15, page 405

[40]Ian Brownlie, page 136, "8. Effective Occupation"

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Kurdish control. Further consideration of outstanding claims by Kurds was promised at the time a formal constitution would be drawn up, following the intended Iraq-wide elections.

The position of the Kurds has been further worsened by the United Nations resolution on June 9th 2004 on the future of Iraq. Although this promised Kurds a degree of control over their natural resources and political process, there was no reference in the U.N. resolution to the interim constitution that guaranteed Kurdish autonomy. With only a few days to go before of the installation of the interim Iraqi government, in which the Presidency will be held by a Sunni Arab and the position of Prime Minster by a Shiite Arab who is known to oppose Kurdish autonomy, due to assume office at the end of July, 2004, Shiite Grand Ayatollah Ali al-Husseini al-Sistani publicly pledged to work for the removal of all guarantees of Kurdish autonomy in the interim Iraqi constitution. Many in Iraq believe that al-Sistani's goal is to become the Khomeni of Iraq, possibly with cautious Iranian assistance. As a result, the leaders of the two main Kurdish political parties, Massoud Barzani and Jalal Talabani, sent a June 1 letter to President Bush pointing out that "Iraq is a country of two main nationalities, Arabs and Kurds... The people of Kurdistan will no longer accept second-class citizenship in Iraq... If the [interim constitution] is not applied or if it is suppressed, the government of Kurdistan will have no other choice than to end its participation in the central government and is institutions, to boycott the elections and bar the entry into Kurdistan of central government members."[41]

Events will clearly have advanced further before this article is published. At the time of going to press (June 12, 2004), the situation is extremely fluid, but given the degree of oppression and discrimination against the Kurds in Turkey, Iran, and Syria as well as in Iraq prior to the American invasion, Kurds hope that the international community will support their desire to achieve autonomous self-governing status in Iraq, as also, eventually, in each of these countries.[42]

---

[41] "Kurdish Leaders Upset with U. N. Resolution," p. A17, *The Washington Times,* June 10, 2004.

[42] Gregory J. Ewald, page 405.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The topic of

Russia as a Superpower
by Seymour W. Itzkoff

in this issue of
The Journal of Social, Political and Economic Studies
and similar topics are discussed at length
in Professor Itzkoff's 2003 book:

Intellectual Capital In Twenty-First-Century Politics
(The Human Prospect, 3)

$16 USD - ISBN 0913993204 - 141 pages

Paideia Publishers,
P.O. Box 343, Ashfield,
Massachusetts 01330

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Russia as a Superpower

Seymour W. Itzkoff
Smith College

The author surveys the dramatically improved economic prospects in Russia and the vast potential mineral wealth of Siberia, and suggests that although handicapped by its small and presently declining population, Russia now has the opportunity to re-emerge as one of the key players on the world scene.

Key Words: Russia; China; Siberia; Azerbaijan; Turkmenistan; Kazakhstan; Oil and mineral wealth; Emerging capitalism; Soviet communism.

Contemporary Conditions

In 2003, Exxon Mobil, Royal Dutch Shell, and B.P., together with a variety of smaller Japanese, Russian, and Indian partners, planned a $12 billion investment project along Russia's Pacific Coast, on the island of Sakhalin. The exploratory estimate is that there are at least 60.5 billion barrels of oil in the waters off this coast, plus c.200 trillion feet of gas. The financial arrangements under which these companies would be able to take home their hoped-for profits from this investment, and to insure that the Russian homegrown oil cartel will itself not be able to torpedo the project by the outsiders, was approved on May 15, 2003 by the Parliament in Moscow.[1]

The Japanese, having beaten out a Chinese bid for a pipeline to China early in 2004, look forward to the possibility of a 1,450-mile-long pipeline built that will connect directly to the Pacific, bringing Russian oil so near to them, just three days shipping away. Presently, the Japanese import 86 percent of their oil from the Middle East. The Sakhalin project includes a variety of oil pipelines as well as gas-processing plants. Japan, South Korea, and Taiwan today constitute 70 percent of the international liquefied natural gas trade.

Taken together with Russia's estimated pre-existing reserves of c.60 billion barrels of oil underground, plus vast amounts of natural gas, large amounts of which are presently being exported to Western Europe by *Gazprom*, the semi-governmental monopoly, Russia's estimated reserves

[1] Brooke, J. 2003. *The New York Times*, May 13.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

surpass Iraq's supposed 112.5 billion barrel oil reserve.[2] A government-owned oil pipeline is now planned to reach Murmansk in the European north of Russia for export to Western Europe and North America, plus another pipeline from already-existing East Siberian fields to China.

This is good news for the future economic development of a nation that only a decade ago was in utter social and economic collapse following the disintegration of the Soviet ideological system. The manufacturing sector, which exported cars, planes, war equipment, and a variety of "junk" consumer goods, was in a stroke rendered insolvent, the jobs lost. Who would buy these goods now that Western and Asiatic products of infinitely better quality were available?

The robbing by the Russian oil kleptocracy of this heritage from the people did result in a rapidly modernizing oil sector and a flood of dollars and Euros into Russia, given the recent high oil prices. The teachers and pensioners are now being paid, the governmental budget for 2002 of $45 billion, and the gross national product estimated by President Putin of $388 billion on a base of about 145 million people translate into an average income of c.$2600-per-year for each Russian citizen.[3] This is an improvement over estimates of about $2000-per-person just several years ago. The change for the better is due to the overall growth rate of the Russian economy of 6 percent-per-year since 1999. However, this wealth is not well distributed, as admitted by Putin, the new oligarchs and their associates have cornered much of the wealth, now concentrated in and around Moscow and St. Petersburg, such that Putin estimates that 25 percent of the population lives below a $2-a-day income – not too far above levels on which Africans below the Sahara exist.[4]

Russia's external debt of $149 billion is in part probably behind the attempts to obtain a portion of the vast profits made by the largest of the oil privatization corporations, Yukos, which is accused of tax evasion, and the jailing of its brilliant but questionable founder, Mikhail Khodorkovsky. The Russian courts will no doubt bow to President Putin,

[2] Cambridge Energy Research Associates.

[3] CIA Statistics Book, 2002.

[4] Myers, S. L. 2003. "Putin Tells Russians of Clouds with Reform-Plan Lining," *The New York Times,* May 17.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and for the moment at least the movement toward more state control over these resources will continue

Russia is a vast land, 6,585,000 square miles. By comparison, the U.S.A., has 3,535,000 square miles and c.292,000,000 population (2004), almost one-half the land mass and twice the population of Russia. Included in this vast Russian geographic swathe, through six time zones, are vast mineral resources besides oil and gas: bauxite, zinc, nickel, molybdenum, tungsten, iron, copper, gold, and silver. Also, there are timber and black agricultural soil in almost unlimited amounts. True, much of Russia is cold and hostile to agriculture. In the agricultural domain, however, private investment has been so active that former state communes have become quasi-corporate entities. The workers are paid based on productivity, and the nation is enjoying agricultural surpluses and pricing accessible to the working and middle classes.

However, the demise of the dilapidated Soviet industrial infrastructure has resulted in 80 percent of Russian exports now being agricultural or mineral commodities, extremely volatile in price structure. Exports to Germany constitute 9.2 percent of the total; to the U.S. it is 8.3 percent. Of the imports, again, Germany is the great supplier, 13.2 percent of the total.

Clearly, things seem to be getting better for Russia. But what of the future?

Demographic Heritage

We cannot discuss the future of Russia unless we examine its past, especially its demographic travails throughout the twentieth century. The beginning of the century saw the Russian people newly emerged from their binding servitude to the land, through the 1862 emancipation of the serfs. Still, by and large, their family structure had in no way been compromised by their social and political subservience. By 1900, the Czarist autocracy was desperately attempting to modernize and industrialize this backward Slavic-controlled nation. The shocking military defeat at the hands of the Japanese in 1904, themselves newly emerged from feudalism, made the need for modernization ever more urgent. While Siberia was the destiny for many a revolutionary in Czarist Russia, the extent and character of Siberian exile was in no way

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

comparable to the horrors of the later Soviet gulag.

Given a pre-existing aristocratic cultural heritage in the arts, these one hundred million or so Russians plus other ethnic groups had significant potential for modernization at the beginning of the century. However, World War I was a disaster for Russia, with very heavy losses amongst the officer corps out of a total loss of several million soldiers. During the Bolshevik Revolution and the ensuing chaos, many of the hitherto more successful and educated were killed or fled the country. Much intellectual talent was thus already lost on the eve of Lenin's and Stalin's various wars against human ability and independence.

The estimates for the destruction of the Russian and other ethnic peoples during the period of Stalin's various five-year plans for modernization, Stalin's war against the intelligentsia and the kulaks (farmers allowed to own their own land following Lenin's "New Economic Policy"), plus the catastrophic losses that occurred during World War II, vary between 30-40 million people. Following World War II, Stalin engaged in still further purges until his death in 1953. By then, the Soviet Union had been converted into a military/industrial threat with a functioning and highly-educated scientific/engineering elite. However, as we have seen, the system itself was incapable of mobilizing the kind of scientific/technological propulsion to compete with the United States and the West.

"They pretend to pay us, and we pretend to work" symbolizes a Soviet-period comment about the system and its subsequent collapse in 1991, which left Russia without many of its constituent nationalities, themselves impoverished and morally disintegrated. How much of the defeat of the Soviet Empire was due to the system, or the intellectual competition with a United States that had recruited talent from post-World War II Europe, we will know better as the research continues through the next decades. Certainly the communists did destroy important components of their intellectual potential. The emigration of hundreds of thousands of highly-educated Jews to Israel following the collapse of communism was a further loss.

Critical Problems

As for economic potential, the future possibilities for middle-class

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

development in Russia seem unlimited. Even assuming a waning twenty-first-century intellectual capital, as compared to the Russia on the eve of the twentieth century, this is a country of the frontier. If it moves wisely, it could mirror the United States of the late-nineteenth, early-twentieth century, a magnet for Europe's talent potential. Even into the late-twentieth century, the educational superiority built up by the United States in both the independent and the governmental sectors of higher education was attracting to U.S. science programs a student body of which 50 percent were from abroad. Many of these students stayed on in the U.S. Such a migration could happen in Russia also, given its enormous economic potential and a democratizing internal political environment.

Russia, however, cannot easily cast off in a moment seventy-five years of ideological incoherence and the vicious social policies that followed the Bolshevik uprising. Hardly a decade after the dissolution of the Soviet state, and now under fairly rational political leadership, Russia, as a nation and a people, faces problems that are both ubiquitous, from the Western standpoint, and formidable.

The first is the law. Russia must move to coordinate its system of justice with the patterns of its developed democratic neighbors to the West. The breakdown of the old totalitarian system and the still hesitant moves toward freedom and democracy have facilitated the development of a Mafia-like kleptocracy that rapidly become pervasive. Improvements in criminal justice are crucial to deal with this. Perhaps overriding in this establishment of an impartial legal system is the need to move toward free enterprise and the protection of property rights, where tax laws on individuals and corporate entities, including foreign firms, are soundly enforced. A parliament is needed that will respect the actions of its predecessors, to give the world confidence that an agreement is an agreement, not subject to the whims of the next turn of government by clique.

To prosper, Russia must transcend the policies that allow monopolists to keep competition out, thus subjecting the populace to the stagnancy of a new form of centralized control. By allowing for foreign investment through confidence-building laws that protect investor privileges, allowing profits to be converted to foreign funds and foreign

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

hands, the economy will be stimulated, jobs created away from government and the insiders, which will contribute to the formation of a participatory middle class. In this way only can democratic freedoms and the possibility for ongoing political, economic and social progress be ensured.

Russia is vast geographically, and those governing the extremities often take the opportunity to distance themselves from the centers of governmental control. Local tyrants have sprung up with their own regional power structures, corruption, and autocracy. However, the central government in Moscow has taken actions over the past several years to prevent this sort of regional mobocracy.

The Chechen situation is incendiary, fed by a history, if only from the days of the Soviet's persecution of the Chechens during World War II, of forced evacuation and then reluctant return. One would hope that a semblance of federal local home rule, combined with the increasing prosperity of the center, will loosen the grip of the foreign Islamic terrorist component of the Chechen revolt and bring about a peaceful resolution. In dealing with other Islamic minorities, the Tartars of Kazan, in the eastern European regions of Russia, for example, a peaceful, and also a prosperous model has developed that could be a guide to Russia's resolution of the question of its still-large ethnic diversity.

Clearly, Russia under Gorbachev moved more quickly than China under Deng to promote a more democratic political system. The Chinese then moved even more rapidly to loosen the totalitarian economic noose, perhaps because they had been suffocating under Maoism for less than thirty years, 1949-76. The Russians had suffered under a similar yoke for over seventy years, during which the entire economic system could only move lock step under the commands of Moscow. Even as we enter the twenty-first century, Russian law is only gradually allowing agriculture to move to a system of the rights of "ownership" by those who work the land. However, as noted above, indigenous corporate investment in large collective farms has been allowed.

The ill-organized drive, after 1993, to privatize and thus dissolve the state-run industrial and agricultural base was disastrous because of the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

takeover by a few privileged "apparatchik" party insiders of huge natural resource enterprises, oil and gas, nickel, etc. However, to gain international legitimacy, these new barons of power have begun to invite foreign investment into these industries and thus to modernize them. Not only is the oil and gas industry working at an unaccustomed level of efficiency, but also Russian steel is once more entering the international market at highly competitive prices. The remaining elements of the Soviet industrial system that threatened the West for so many decades is by now largely obsolescent. A new industrial structure will have to emerge. How long this may well depend on the political/legal ability of the system to permit collaboration with foreign enterprises.

In sum, the central issue revolves around a system of justice for the individual plus laws that will allow for the equitable development of a market-based economy, one that balances both internal and external investment and risk taking. The problem of plurality within unity still hangs over the Russian Federation with regard to regional ethnic autonomy, while maintaining a coherent system of laws for the nation as a whole.

Political/Economic Hegemony

Of all the former Soviet constituencies, the Russian Federation now seems to be the most democratic in political structure, perhaps the most honest in its post-Yeltsin economic openness. Whatever one can say about Putin's former KGB connection, Yeltsin did choose as his heir a man of sober, rational, and largely democratic tendencies, who still keeps a shrewd hand on the national tiller. Putin possesses a Deng-like awareness of the need to keep power centralized, at least for the time being, to prevent the social/political structure from dissolving into chaos.

Given its enormous natural resources, with its 145,000,000 population distributed lightly over a vast geo-domain, the Russian Federation is the one nation of the various Soviet constituents that has the possibility of becoming the center for a new superpower alignment in the twenty-first century. Consider the Ukraine, the second largest of the former Soviet domains. The Ukraine has a population of 49 million, a land mass of 233,000 square miles. The United Kingdom, by contrast, has three major constituencies, England, Northern Ireland, Scotland. The total

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

population of the U.K. is 60 million, its land surface 93,200 sq. miles. The Ukraine has 10 million fewer in population with about two and a half times the land area.

The Ukraine has deep political problems. It needs to go further in shedding the state structure in economics, this run by a post-communist dictatorial hierarchy led by Leonid Kuchma. Politically the Ukraine is not as bad off as Belarus, with c.10 million population, 80,000 square miles, run by a greater tyrant, Lukashenko. The Russian Federation's advance into democratic capitalism is emphasized further by comparison with the various autocrats and tyrants that run the other former Soviet Republics.

The Republic of Georgia, Stalin's homeland, recently experienced a peaceful revolution with the ouster of the inept former Soviet Foreign Minister, Eduard Shevardnadze. The new man, now voted into parliamentary legitimacy, is Mikhail Saakashvili, 36, a graduate of Columbia University Law School. Georgia and Armenia are the only majority Christian nations in the Asiatic contingent. The Baltic nations, Lithuania, Latvia, Estonia (Finno-Ugaric) are now aligned with the West, NATO, and the EU. Impoverished Moldova is partly Rumanian, partly Russian.

The majority of the population of the Asiatic republics are Muslim, and speak Turkic languages, with one exception, Tajikisthan, whose people speak an Indo-European dialect related to Iranian. Tajikisthan was recently cited by the UN as permeated by corruption. All three have large oil and gas reserves. Kazakhstan has a significant Slavic Christian minority, mostly urban and thus influential.

The latent military and economic power of even today's Russia is symbolized in its military and economic aid to Armenia in the latter's land disputes with Azerbaijan over Nagorno-Karabakh. The nation without the oil, Christian Armenia, seemingly won out in the struggle. This was all part of an effort by Russia to maintain control of the vital Black Sea shipping and oil routes to the Mediterranean. For similar reasons the Russians earlier had encouraged the Muslims of Abkhazia and South Ossetia, provinces of Georgia, to revolt against the breakaway (Christian) government of Georgia. We will see what the future holds for this Caspian Sea hinge. In Moldova, also, the Russians, fearing a

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

merger with Romania, led a revolt of the ethnic Russian-settled province of Trans-Dnestr, the latter led by the late General Alexandr Lebed, to effect a virtual separation from this tiny Latin-speaking nation.[5]

The Russian Federation is not a member of NATO or the EU, as are the Baltic states, Lithuania, Latvia, Estonia, but Russia is lobbying to enter the World Trade Organization (WTO). Again, there is potential power in size and wealth, especially Russia's central geo-political position. Latvia's recent assent to "Big-Russian-Oil" (Yukos) participation in refining and exporting royalties, as the price for expediting oil pipeline supplies to its refineries and Baltic Sea storage and shipping facilities, is an example of the latent power of Russian Federation interests.

Russia and China

It should also be stated that, even as China controls the water resources of South and Southeast Asia by its hegemony over Tibet, Russia has its own independent water courses that move north into the Arctic Ocean, or south into the Black and Caspian Seas. There is no reason here for any conflict with China or India over "white gold." Russia has more than enough water for itself and its allies.

As for oil and gas, China, Japan, and South Korea do not have enough to meet their needs, but Kazakhstan has enormous reserves of both, and must look attractive to China. The large Slavic minority and the tradition of Soviet association, in addition to the Muslim religious and Kazakh ethnic orientation of the majority of the population, argue for a Russian hegemony in Central Asia, given China's move to repopulate Xinjiang Province with Han-speaking immigrants. But all bets are off if Russia remains weak and China continues to sprint ahead economically and militarily. Turkmenistan and Azerbaijan are nestled among various Russian Christian clients. Russia is to their north, weaker Afghanistan and Iran to their south. It is clear that Russia will prevail here.

---

[55] Dima, N. 2003. "The Black Sea Region," *The Journal of Social, Political and Economic Studies,* 28:1:77-96, Dima, N. 2001. *Moldova and the Transdnestr Republic,* New York: Columbia University Press.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

However, hegemony can be achieved by other means than war. Consider that there are already up to several million Chinese "guest workers," more likely entrepreneurs, in the east Siberian zone, where under-population is serious and opportunity tempts the always-crowded and energetic Chinese. And the Chinese population is still growing while that of Russia is declining. There is also a potential for much economic interdependence between Russia and the three great Asiatic powers, not to speak of Singapore, Taiwan, Viet Nam, Thailand, and an eventually-to-be-liberated North Korea. Much of Eastern Europe as well as the Baltic States will likely look to the Russian Federation and its satellites for trade. The "Old Europe," already in welfare surfeit, if not in stagnant balance, will no doubt fade as an area of economic growth and power, in the sense of both its latent as well as active willingness to use this power.

Will it Happen?

The Russians were producing engineers, rocket and nuclear scientists during the Cold War, and even after Stalin's death. The assumption is that a core of intellectuality exists in the Russian Slavs, as well as with the Slavs of the Ukraine and Belarus. They could first be tapped to rebuild this trans-Slavic, Russian infrastructure. The Jews who left after the breakup of the Soviet Union, and others, such as educated Indians and Chinese, for example, if permitted by the Russian government may well seek to become a part of what is now a new land of opportunity. This is especially so as the United States will likely have fewer high-paying jobs for educated foreigners. Rather than concerning itself with rewarding innovation and entrepreneurship, *i.e.,* with tax policies, the Russians have a flat tax, while the U.S. is weighed down by its populist-inspired preoccupation with affirmative action and the redistribution of wealth.

Fortunately few ideological delusions remain today amongst the graduates of the Soviet system of state-ordered "equality of enslavement." The Russians will in the future reward intelligence and productivity once they get their internal *gangsterite* under the rule of law. Of course, no iron-clad rule ensures such a scenario. The long-abused citizens of all the ex-Soviet Republics have long been oppressed by

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

autocracy and tyranny. The eighteenth-century Anglo-Saxon traditions of law and justice were nurtured in their realization for centuries in England before their transfer to the North American colonies.

Russian hegemony over this vast geography will be stimulated by the rare fact that this great northern expanse is an emptiness in a world engorged with impoverished people. The Russians will have to restrict migration from the destitute lands, whose tragic folk can only contribute more leaden poverty, but there is no reason why European Russia and the areas around the Black Sea, even those Caucasus nations that line up with Russia, should not become Silicon Valley clones. The best and the brightest could in this beneficent climate create a bustling prosperity for the Russians that their peers once did for California.

Certainly, Russia will not become a magnet for the best and brightest overnight, but note that there are thousands of top Indian intellects, graduates of the Indian Institutes of Technology, now seeking to move to California, who might be ready to shift north into the Russian Federation if permitted.[6] The raw conditions of opportunity are even today reminiscent of the old U.S.A.

Putin has stated that his goal is to double the G.D.P. to c. $765 billion in a decade. By 2015, Russia could be in a take-off mode for real growth. This will depend on whether its educational system continues to be loosened from governmental controls and whether new independent universities can be created that match the best international standards. Another 35 years hence, as the United States and Western Europe struggle with masses of indigenous poor, the Russian Federation and its hegemonic allies, whether politically federated with Moscow or associated in close bilateral bonds, could become a co-superpower with China, itself in a hegemonic embrace with the likes of Japan, a united Korea, Taiwan, Viet Nam, Singapore.

Is there a vision in Moscow and its constituent centers as to what constitutes a rational possibility for the future of the former Republics of the Soviet Empire? Can they now have their ethnic, religious, linguistic, historical cake and eat it, along with a large helping of

[6] Homola, V. 2003. "The Indians Are Already Leading the Germans," *The New York Times*, July 10.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

international flavoring? The history of China, which flourished with the assistance of – some might say as a by-product of – Indo-European and Turkic cultural and genetic inputs brought by invaders from the northwest, should remind us of any latent intellectual and cultural potential that still lurks amongst the presently-demoralized people of Samarkand, Bokhara, and Tashkent on Russia's southern borders. The peoples of these regions once had richly-developed cultural traditions. We have not in modern times experienced the potential of the Turkic peoples. Shedding the Islamic nihilism of their Arab brethren, they could develop a secular civilization that would add to the international influence of the hegemonic Slavs to their Northwest.

A Message to the Old West

Which nation will rank as super-power in 2050, mid-century? The Chinese by that time will have moved rivers and canals through dams and diversion so as to lessen the pressure of their 1.3 billion, now in an improbable one woman/one child stasis. Inexpensive, highly intelligent and educated workers, plus a homegrown market, attracts great corporations, technology as well as basic industries. Still, this is a large number of people to manage efficiently, even in a day of instant communication and almost instant transportation. One cannot anticipate the intellectual, ideological, religious, or other infatuations that could demolish the best of all political/economic plans. Then there are those unexpected natural events, SARS-like plagues, drought, earthquakes. Given our knowledge of human management when dealing with a billion and a half persons, there is little room for error.

The Russian population may recover demographically with a modicum of prosperity in the coming decades. Rather than the predicted decline to c.101-110 million people (year 2050), prosperity and immigration of the talented, if permitted, could increase it beyond its present level of 145 million, with an approximately similar increase in their satellite neighbors, the inner Euro-Asiatic hegemonic association. Certainly, we are speaking economically and politically, with regard to the Russian Federation, of a total of 300 million closely-associated peoples. How powerful relative to China (estimated population c.2050, 1.395 million) this association will be is the question that all Western

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

leaders and planning institutes should be studying.

There are already hints of a possible Russian technological resurgence emerging from the well-educated younger generation now freed of the memories of Soviet dictates. In 2003 Intel invested four million dollars in a start-up Russian enterprise, "ru-Net." A subsidiary of this company, "topS Business Integrator," has raised a total of $10 million, including Intel's monies, to expand its PC and server distribution business. Frankfurt, Germany-based "Quadriga Capital," in St. Petersburg, has raised $30 million of a planned $120 million fund for technological investment in the Russian Republic. Overall, it is estimated that information technology investment in Russia will have grown 12 percent in 2003, about twice the global rate, to $5.5 billion.[7]

My wager is that that unlike the Russian confederation of states discussed above, where the intellectual levels will be comparatively high, Western Europe will, in 2050, be dealing with non-European citizens of origin upward of the 25-35 percent level, given current immigration and fecundity rates, the old timers continuing their low fertility. However, these newcomers, as with the existing social minorities in the United States, have an intellectual and educational history that is not up to the traditional European mark. The nations of the "Old West" may well be struggling with affirmative action, dependency welfare, disease, crime, income redistribution, terrorism, and, in general, social unraveling. It will be instructive, by comparison, to see how the United States copes over the decades.

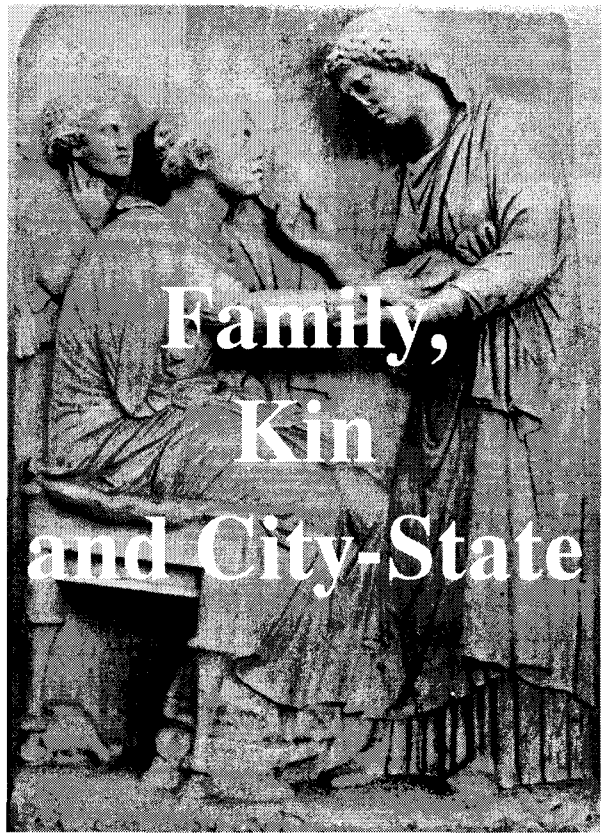
Innovation gravitates toward expanding markets and cheap and efficient production centers. Are we inevitably pointing to China and the Russian Hegemonic Association? It will be interesting to see how Vladimir Putin and his successors manipulate these possibilities. They have a fantastic hand. Can they play it?

This and similar topics are discussed at length in Professor Itzkoff's 2003 book, *Intellectual Capital in Twenty-First-Century Politics*, Paideia Publishers, P. O. Box 343, Ashfield, Massachusetts 01330.

[7] Reinhardt, A. and P. Starobin. 2003. "Intel Inside-Russia, That Is," *Business Week Online*, June 17.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Numa Denis Fustel de Coulanges



The Olympians were not the only source of religion in ancient Greece and Rome. More important was the worship of the lineage, symbolized by the sacred hearth fire and the reverence in which the ancestors were held.

Edited and abridged by J. Jamieson. ISBN 1-878465-34-1. P/back, 108 pages
Price: $16.00. P&P $3.50 (USA) $4.50 (foreign). Visa and Mastercard accepted

Scott-Townsend Publishers
P.O. Box 34070, Washington D.C., 20043
Tel: (202) 371-2700 Fax: (202) 371-1523 socecon@aol.com

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Uncontrolled Immigration and the U.S. Health Care System

Alison Green and Jack Martin[1]
Federation for American Immigration Reform, Washington. D.C.

The authors argue that the rising pressure of illegal and legal immigration into the United States is a major contributor to the current financial crisis that threatens the U.S. health care system. They produce evidence to show that in some hospitals, as much as two-thirds of total operating costs are for uncompensated care for illegal aliens, and that the massive volume of both legal and illegal immigration is responsible for an estimated national total of unreimbursed medical expenses that exceeds one billion dollars annually.

Key Words: American health care system; U.S. immigration; Illegal immigration; health insurance; Medicare; Medicaid.

America's health care system is in a state of crisis: Costs are skyrocketing – 2003 saw the largest increase in health care costs in 13 years[2] – placing an increasingly difficult burden on both individuals and businesses, while the number and proportion of uninsured persons is increasing. Large numbers of hospitals, especially those along the southwest border, have either cut back services, closed, or face bankruptcy largely caused by uncompensated care given to illegal immigrants. More than half of all counties surveyed by the National Association of Counties say that recent immigration – both legal and illegal – is causing their uncompensated health care costs to rise.[3]

As states cut their health care budgets to try to make ends meet, high rates of immigration, both legal and illegal, are causing a major drain on health care resources and taxpayer funds, but the failures of federal immigration enforcement tell only part of the story. In many areas, the magnitude and cost of illegal immigration are also consequences of local policies that encourage illegal alien settlement by

---

[1] Address for correspondence: FAIR, 1666 Connecticut Avenue, #400, Washington DC, 20009

[2] Margaret Steen, "Costs Surge for Health Benefits," *San Jose Mercury News*, April 30, 2003.

[3] Press Release, "Health Care Costs for Metropolitan Counties Rise Dramatically," National Association of Counties, February 4, 2003.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

granting costly benefits to people who violate immigration laws.

Under current U.S. law, hospitals must treat and stabilize anyone who seeks emergency care, regardless of income, insurance, or immigration status.[4] Yet most hospitals receive little or no reimbursement for the care to legal and illegal immigrants that the federal government mandates that they provide. Although the Illegal Immigrant Reform and Immigrant Responsibility Act of 1996 (IIRAIRA) approved reimbursement to hospitals for emergency care for illegal immigrants, neither program has been funded.[5]

Lawsuits were brought by several states against the federal government in the 1990s, seeking reimbursement for the cost of handling the massive influx of illegal aliens that federal authorities had failed to contain, but these were dismissed on the grounds that the issue was a "political question" rather than a judicial issue.[6]

Medicaid and Medicare

The 1996 Personal Responsibility and Work Opportunity Reconciliation Act stopped immigrants from receiving Medicaid (which essentially seeks to provide medical services for impoverished people who are below retirement age) for their first five years in the country (with exceptions for those who were already in the U.S. prior to 1996, children, and pregnant women). Medicaid funds are drawn from federal, state, and local budgets. Some 3.5 million immigrants were regularly enrolled in Medicaid in 2002, and an additional 3.7 million were enrolled in Medicare (which is primarily designed to provide medical services for older persons).[7] Congress did not rule out emergency Medicaid, which allows both legal and illegal immigrants to receive emergency medical treatment.

---

[4] The Emergency Medical Treatment and Active Labor Act (EMTALA) of 1986.

[5] Sec. 610 of the Prescription Drug and Medicare Improvement Act of 2003.

[6] The suits were brought by Arizona, Florida, and California in 1994. "The federal government's failure to honor the Constitution's express guarantee to protect Arizona's borders has forced Arizona to incur millions of dollars in avoidable costs," the state's lawyers added in an appeal. Florida noted that its costs were due to "the national government's massive and persistent failure to enforce the immigration laws."

[7] Robert J. Mills and Shailesh Bhandari, "Health Insurance Coverage in the United States: 2002," U.S. Census Bureau, September 2003.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

U.S. Immigration Policies Responsible

U.S. immigration policies have played a significant role in creating the U.S. national health care crisis, in which more than 41 million Americans lack basic health insurance. Immigrants are two and a half times as likely to lack health insurance as U.S.-born citizens.[8] One out of every four uninsured people in the United States is an immigrant, according to Census data, with immigrants currently comprising 11.5 percent of the total U.S. population.[9]

When the National Association of Counties surveyed its members in 2002, 67 percent of counties cited an increase in immigration as a cause of the rise in uncompensated health care expenses. All of the responses indicated that newly arrived immigrants are among the predominant users of uncompensated health care.[10]

Legal immigrants are supposed to have sponsors in the U.S. who guarantee that they do not become a burden on the community, but costs are seldom if ever recovered from these persons. Immigrants also tend to be uninsured, because of the high proportion of illegal immigrants, and because the U.S. immigration system literally imports poverty.[11] In immigration-heavy states, the effects are even more pronounced. Nearly three-fifths of all poor children in California are immigrants, and the poverty rate of the state's immigrant children (29 percent) is significantly higher than that of children born to resident parents,[12] with corresponding disparities in health insurance coverage.[13] Immigrants (legal and illegal) who arrived between 1994 and 1998; and their children, accounted for 59 percent of the growth in the size of the uninsured population since 1993.[14]

---

[8] Ibid.

[9] Ibid.

[10] Uncompensated Health Care Expenses Report, Executive Summary, National Association of Counties, June 13, 2002.

[11] U.S. Census Bureau, Current Population Survey, 2002 Annual Demographic Supplement.

[12] The Changing Face of Child Poverty in California, August 2002, National Center for Children in Poverty (Columbia University), August 2002.

[13] "Coverage Matters: Insurance and Health Care," Institute of Medicine, *National Academies*, September 2001.

[14] Steve Camarota and James Edwards, *Without Coverage: Immigration's Impact on the Size and Growth of the Population Lacking Health Insurance*, Center for Immigration Studies, 2000.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Because of the uncompensated expense of treating uninsured patients, communities with high rates of uninsured residents "are more likely to reduce hospital services, divert public resources away from disease prevention and surveillance programs, and reallocate tax dollars so that they can pay for uncompensated medical care," according to an Institute of Medicine of the National Academies of Sciences report.[15] In 2001, public funds had to cover up to 85 percent of the $34-$38 billion shortfall in unreimbursed expenses incurred by the persons lacking health insurance,[16] and the situation is deteriorating.[17] When the 3.5 million immigrants receiving insurance through publicly-funded Medicaid are factored in, almost half of U.S. immigrants have either no insurance or have it provided to them at taxpayers' expense.[18]

Lack of insurance leads many immigrants to forego or postpone medical care, especially preventive care. This can cause their condition to deteriorate, ultimately increasing the cost of treatment. Many immigrants consequently end up using hospital emergency departments – the most expensive source of health care – as their primary care provider.[19]

Because emergency rooms must treat patients regardless of their ability to pay, high rates of uninsured patients can spell financial disaster for hospitals. The cost of caring for these patients is absorbed by the counties or hospitals obligated to provide treatment, and some is passed on to insured patients. In the form of higher bills for all.

In communities near the porous southwest U.S. border, hospitals reported losses of almost $190 million in unreimbursed costs for treating illegal aliens in 2000.[20] Had the report included physician and ambulance fees and follow-up services, the total price tag for medical care supplied to illegal aliens in those hospitals in 2002 would have been about $300

---

[15]Joe Goldeen, "Many San Joaquin County, Calif., Residents Cope with Lack of Health Insurance," *The Record* (Stockton, CA), May 4, 2003.

[16] Ibid.

[17] Camarota and Edwards, op. cit.

[18] Ibid.

[19] Health Care Benefits for Legal Immigrants, National Association of Counties, 2003.

[20]*Medical Emergency: Costs of Uncompensated Care in Southwest Border Counties*, U.S. / Mexico Border Counties Coalition, September 2002.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

million, according to the report's authors.[21]

The U.S.-Mexico Border Counties Coalition studied the 24 U.S. counties adjacent to the Mexican border and concluded that: "The disproportionate burden placed on southwest border counties for providing emergency healthcare services to [illegal aliens] is compounding an already alarming state of affairs."[22] In some hospitals, as much as two-thirds of total operating costs are for uncompensated care for illegal aliens.[23] The increase in such costs has forced many hospitals to reduce staff, increase rates, and cut back services.[24]

The problem has been accentuated by the fact that some Mexican ambulance companies are now instructing their drivers to take uninsured patients across the border to the United States. The ambulances are reported to simply drive across the U.S.-Mexico border's many unguarded crossings,[25] forcing border hospitals to bear the cost of providing health care to these patients.[26]

The record of the border states is clear:

Arizona, facing a $1 billion state budget shortfall in FY 2004, is considering cutting 60,000 children from of the State Children's Health Insurance Program.[27] Yet in December 2001, the state legislature approved a further $3 million to cover kidney dialysis and chemotherapy for illegal aliens.[28]

- The health department in Cochise County, where the population of illegal aliens is estimated to have increased by 48 percent since 1999, spends almost a third of its budget on care for illegal aliens. At least one hospital there – Southeast Arizona Medical Center –

[21] "Report: Cost for Undocumented Immigrants Exceeded $200 Million," *Hospital Outlook*, September/October 2002.

[22] U.S. /Mexico Border Counties Coalition, op. cit.

[23] Jerry Seper, "Mexican Medics Take Sick to U.S.," *Washington Times,* December 12, 2002.

[24] Diana Washington Valdes and Sergio Bustos, "Migrant Care Cost El Paso $30 Million," *El Paso Times*, September 26, 2002.

[25] Seper, op. cit.

[26] Jerry Seper, "We are Overwhelmed," *Washington Times,* September 24, 2002.

[27] Heather R. Mizeur, "Critical Condition: State Budget Crisis Threatens to Put Centers on Life Support," National Association of Community Health Centers," March 2003.

[28] Michelle Malkin, "Osama's Medical Welcome Mat," *Washington Times*, January 1, 2002.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

has filed for bankruptcy and is in danger of closing due to uncompensated care for illegal aliens.[29, 30]

- Cochise's Copper Queen Community Hospital spends two-thirds of its operating income on uncompensated care for immigrants, a factor administrators say played a role in the hospital's decision to close its long-term care unit.[31] The facility also has closed its maternity ward because of uncompensated costs.[32] The hospital's emergency room is strained and the average wait for service has climbed to four to six hours.[33]
- Phoenix's Good Samaritan Regional Medical Center lost $1 million treating illegal immigrants during the first quarter of fiscal year 2002.[34] The wait for intensive care beds there can last several days, and some ER patients have waited 24 hours to see a doctor.[35]
- The University Medical Center in Tucson lost $6.5 million in 2000 caring for immigrants, an increase over the previous year's $3.5 million cost. The hospital ended 2000 with a budget shortfall[36] and predicted it would have to absorb $8 to $10 million worth of uncompensated care to foreign nationals in 2002.[37]
- The five largest health care providers in Maricopa County lost $318 million in uncompensated care in 2001. Maricopa Medical has had to double up rooms, putting four patients into rooms built for two.[38]

California, in addition to Emergency Medicaid, provides both legal

---

[29] Seper, op. cit.

[30] Dana Canedy, "Hospitals Feeling Strain From Illegal Immigrants," *New York Times*, August 25, 2002.

[31] Susan Carroll, "Migrants' Unpaid Bills Slam Hospitals," *Tucson Citizen*, September 26, 2002.

[32] "Effects of Obstetrics Closure on Area Clinics," Ginger Ryan, CEO, Elfrid Community Health Center, summary of the National Advisory Committee on Rural Health meeting in Tucson, Arizona, June 9-11, 2002.

[33] "Impact of Immigration, Malpractice, and EMTALA," Jim Dickson, CEO, Copper Queen Community Hospital, summary of the National Advisory Committee on Rural Health meeting in Tuscon, Arizona, June 9-11, 2002.

[34] Seper, op. cit.

[35] Michael Janofsky, "Burden Grows for Southwest Hospitals," *New York Times*, April 14, 2003.

[36] Carroll, op. cit.

[37] August Gribbin, "Hospitals Feel Pain of Mexico Crossings, Forced to Cover Aliens' Care Costs," *Washington Times*, March 18, 2002.

[38] Janofsky, op. cit.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and illegal aliens with prenatal care and nursing home care.[39] Additionally, locally funded initiatives in Los Angeles, San Bernardino, San Francisco, San Mateo, and Riverside counties now pay for health insurance for illegal immigrants in those jurisdictions.[40]

- In the last decade, 60 California emergency rooms have closed, 19 of them in just the last three years. In 2000, 289 emergency rooms in California reported operating at a loss.[41, 42]
- In Santa Cruz, hospitals are so crowded that they regularly close their doors to new emergency patients.[43]
- Regional Medical Center and Pioneers Memorial Hospital in El Centro, California lost over $1.5 million treating illegal immigrants in 2001.[44]
- 30 to 40 percent of the Community Clinic of Orange County's patients in Santa Ana are illegal immigrants.[45]

Texas: In 2001, Texas attorney general John Cornyn issued a legal opinion stipulating that federal law bans hospitals from using tax dollars to provide non-emergency care to illegal immigrants. However, Harris County – the state's largest county, which includes Houston – announced it would ignore the opinion and continue to provide taxpayer-subsidized non-emergency care to illegal aliens.

- According to the Texas Hospital Association, Texas hospitals spent $393 million treating illegal aliens in 2002.[46]
- Illegal aliens account for almost one quarter of all visits to facilities in the Harris County Hospital District. The district estimates that it spent $330 million on health care for illegal residents between 1998

---

[39] U.S. -Mexico Border Counties Coalition, op. cit.

[40] Lisa Leff, "Despite Budget Crunch, Calif. Counties Are Insuring More Kids," Associated Press, March 8, 2003.

[41] *A System in Crisis, More ERs Shut, Losses Grow,* California Medical Association, 2003.

[42] Press Release, "CMA's Annual ER Financial Report: Hospital Losses Reached $390 Million in 2001," California Medical Association, February 27, 2003.

[43] U.S. -Mexico Border Counties Coalition, op. cit.

[44] Seper, op. cit.

[45] Minerva Canto, "Recent Entries Rarely Covered," *Orange Country Register,* July 21, 2000.

[46] Gary Martin, "Senators Addressing Health Care on Border," *San-Antonio Express-News,* March 5, 2003.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

and 2000, of which $105 million was reimbursed with federal funds, leaving the remaining $225 million to be paid by taxpayers.[47]

- In El Paso, where nearly 40 percent of residents have no health insurance and the illegal alien problem is particularly acute[48] Thomason General Hospital was obliged to appeal for a 12.5 percent property tax increase to help offset its uncompensated care costs. The facility lost $32 million in uncompensated costs in 2001, not including an additional $49.7 million in charity care for patients whom the hospital knew up front could not pay their bills.[49]
- An administrator at Texas's Brownsville Medical Center estimated that his hospital spends $500,000 a month treating illegal aliens.[50]

In Florida, it has been estimated that if Medicaid costs continue to increase at the current rate, the costs would consume the entire state budget by 2015.[51]

- According to the Florida Hospital Association, non-citizens amass unpaid bills of more than $40 million a year at Florida hospitals.[52]
- The number of uninsured non-U.S. citizens admitted to Florida hospitals nearly doubled between 1997 and 2001, reaching 7,670 in 2001.[53]
- Broward County collects $190 million annually in property taxes to offset the $453 million lost in uncompensated care.[54]
- The Florida Hospital Association reports that hospitals in the state "expended considerable time and effort transferring the patient back to their own country or finding appropriate long-term care.

---

[47] Kelli Donges, "Health Care for Undocumented Immigrants: Who Pays?" House Research Organization, Texas House of Representatives, October 29, 2001.

[48] Phyllis Maguire, "As the Uninsured Population Grows, the Health Care Safety Net Unravels," *ACP-ASIM Observer,* September 1999 (American College of Physicians/American Society of Internal Medicine).

[49] Valdes and Bustos, op. cit.

[50] Lynn Brezosky, "U.S. Border Hospitals in Catch-22," *Deseret News,* January 24, 2003.

[51] Phil Galewitz, "Fla. Health System Ill, Lawmakers Told," *Palm Beach Post*, January 10, 2003.

[52] Rick Badie, "Indigent Care Costs Escalating," *Atlanta Journal-Constitution*, January 16, 2003.

[53] Press Release, "New Report From the Florida Hospital Association Reveals that Caring for Uninsured Non-U.S. Citizens Cost Florida Hospitals $40. 5 Million," Florida Hospital Association, January 7, 2003.

[54] Bob LaMendola, "Rise in Uninsured Frays Health-Care Net," *Sun-Sentinel*, May 7, 2002.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Hospitals frequently paid to return the patient to his/her home country."[55]

More than a Border States Problem

The problem is not confined to states traditionally thought of as high-immigration-impact areas. For example:

- At Iowa's Buena Vista county hospital, which must now pay to employs translators on its staff, uncompensated health care for immigrants constitutes 25 percent of the total services.[56]
- Hospitals throughout South Carolina say that they have been left with at least $4 million in unpaid bills after delivering babies for illegal immigrants.[57]
- In 2002, Pennsylvania and New Jersey hospitals gave almost $2 billion in free emergency and short-term care to uninsured patients, a large share of whom officials believe are illegal aliens.[58]
- In 2001, Chicago's Children's Memorial Hospital spent more than $650,000 on transplants and post-care treatment without reimbursement for three illegal alien children. Chicago's Alivio Medical Center estimates that more than half of its 20,000 annual patients are illegal aliens.[59]
- Minnesota county commissioners say that the cost of medical care for uninsured immigrants is too high for local government to bear without federal help and have called on the federal government to shift the financial burden away from local hospitals.[60] Minnesota expects a $4.2 billion budget shortfall over the next two years.[61]
- North Carolina has about $1.4 billion in unreimbursed hospital expenses annually.[62] Each month, a Medicaid emergency services

---

[55] Florida Hospital Association, op. cit.

[56] "Family Well-Being and Welfare Reform in Iowa: A Profile of Storm Lake," Iowa State University, October 1999.

[57] "Hospitals Say Illegal Immigrants Often Leave With Unpaid Bills," Associated Press, August 12, 2001.

[58] Thomas Ginsberg, "Charity Care Costs Hospitals $2 Billion," *Philadelphia Inquirer*, February 26, 2002.

[59] Ana Mendieta, "Hospitals Pay Medical Costs of Undocumented," *Chicago Sun-Times*, December 11, 2001.

[60] Shira Kantor, "Twin Cities Urge U.S. Aid for Immigrant Medical Costs," *Star Tribune*, June 13, 2002.

[61] Mizeur, op. cit.

[62] Christina Headrick, "Farm Worker Protection Meets Stiff Resistance," *Raleigh News &*

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

program sees 220 new cases involving immigrants, many of whom are illegal, at a cost of $32 million.[63]

- For each of the last three years, 60 percent of hospitals in New York lost money. State hospitals lost a total of $1.7 billion in uncompensated care.[64] Yet the state already offers free insurance coverage to some 167,000 legal immigrants.[65]

Hospitals frequently absorb not only the cost of any follow-up care for illegal alien patients but also often pay to return them to the home county. For example, one Florida hospital spent $347,000 to treat one illegal alien patient for respiratory distress, care for him after he stabilized until a doctor in his home country could be found to accept responsibility for him, and to return him and his wife to Colombia. In another case, the facility spent $150,000 to provide an illegal alien with surgery for progressive curvature of the spine and then return him and his family to their homeland.[66] The president and chief executive of Jamaica Hospital, in Queens, New York, says the facility finds that numerous immigrants head straight to the hospital after arriving in the United States, and the hospital has started to buy plane tickets to send some of the ill immigrants back to their home countries, sometimes paying for nurses to fly with them to serve as escorts.[67]

Unable to bear the rising costs, Tennessee has been obliged to remove 208,000 people from its Medicaid program, including 55,000 children. Connecticut has eliminated Medicaid benefits for 23,000 adults and 7,000 children. Oklahoma has discontinued its "medically needy" program, eliminating Medicaid coverage for 8,300 people who had catastrophic medical costs.[68] In all, 49 states have implemented Medicaid restrictions for the 2003 fiscal year: 25 states have reduced

---

Observer, April 29, 2003.

[63] Seper, op. cit.

[64] "N. Y. Hospitals Face a Daunting Challenge," *Star-Gazette* (Elmira, N. Y.), June 5, 2003.

[65] Michael Gormley, "State Adds Cost of Immigrants to Health Care for Working Poor," Associated Press, October 1, 2001.

[66] Care for Uninsured Non-Citizens: A Growing Burden on Florida's Hospitals, Florida Hospital Association, February 2003.

[67] Ray Sanchez, "Patient's Purgatory, Uninsured Immigrant's Legal Limbo," *Newsday,* March 11, 2001.

[68] Robin Toner and Robert Pear, "Cutbacks Imperil Health Coverage for State's Poor," *New York Times,* April 28, 2003.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

benefits, including restricting or eliminating dental coverage and inpatient hospital days; 27 states have frozen or reduced provider rates, 45 states have enacted prescription drug cost controls; 27 states have enacted eligibility cuts and restrictions; and 17 states have increased beneficiary co-pays.[69]

Reports are widespread of struggling hospitals curtailing services, closing maternity wards and trauma centers, laying off staff, and limiting the drugs that will be offered to patients.[70, 71] In July 2002, the University of California Medical Center at Irvine announced that it would refuse care to anyone who lives more than a few miles from its facilities, except in emergency.[72] In West Virginia, two hospitals have closed their maternity wards and several hospitals no longer have either neurosurgeons to treat head injuries or orthopedists to mend broken bones.[73] In El Paso, some clinics for low-income populations now manage conditions on an outpatient basis that normally have involved hospitalization.[74]

Searching for a Solution to the Crisis

Some states are beginning to protect their budgets by reducing the access of immigrants to Medicaid benefits. In March 2003, Colorado became the first state to remove immigrants from Medicaid rolls, saving $2.7 million.[75, 76] Massachusetts is considering following suit by changing Medicaid rules to make 9,500 illegal aliens ineligible, by which it hopes to save $13 million a year.[77] Minnesota is considering healthcare cuts that would remove 4,500 illegal aliens from the General Assistance

[69] Press Release, "49 States Have Planned or Implemented Medicaid Cuts in FY 2003," The Kaiser Commission on Medicaid and the Uninsured, January 13, 2003.

[70] Joseph Treaster, "Rise in Insurance Forces Hospitals to Shutter Wards," *New York Times*, August 25, 2002.

[71] Marsha Austin, "Hospitals Turn Away Ill, Injured," *Denver Post*, June 29, 2003.

[72] "The Crisis Builds, Action Imperative," President of the California Nursing Association Kay McVay, California Nurse, September 2002.

[73] Treaster, op. cit.

[74] Maguire, op. cit.

[75] Bruce Finley, "Budget Ax Hits Immigrants," *Denver Post*, February 11, 2003.

[76] Marsha Austin, "Legal Immigrants' Loss of Medicaid Benefits 'Like End of Life,'" *Denver Post*, March 9, 2003.

[77] Jennifer Peter, "Legal Immigrants, Including Political Refugees, May be Kicked off Medicaid," Associated Press, April 22, 2003.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Medical Care coverage.[78] New Mexico is considering eliminating some emergency medical services for illegal aliens, to save $2 million.[79]

Washington state, facing a $2.6 billion budget deficit, stopped covering 29,000 illegal aliens with Medicaid in October 2002 and expects to save $25 million a year as a result. However, local hospitals are now footing the bill: Children's Hospital & Regional Medical Center in Seattle paid $200,000 in the following two months to care for 600 illegal alien children.[80] And the state, like eleven others, continues to pay for prenatal care for illegal aliens, at a cost to Washington taxpayers of $23 million a year; state lawmakers also set aside about $20 million in 2002 to provide low-income immigrant families with subsidized health insurance.[81, 82]

The escalating burden incurred by hospitals and other health facilities for the uncompensated treatment of aliens is driven by both a federal admission system for legal immigration that has become distorted from its original intent, and by rampant and poorly controlled illegal immigration

Despite an age-old policy designed to assure that immigrants will be self-supporting, the U.S. is allowing large numbers of people to gain permanent residence despite the fact that they are unlikely to be working in jobs with health care coverage or have personal resources sufficient to pay for health services. The second problem – costs stemming from illegal immigration – is a result of the unprecedented nine to eleven million aliens now illegally residing in the U.S.

Neither the sponsors of immigrants legally present in the country nor the employers of those illegally in the country are held responsible for these expenses. There seems to be no single policy or program that

---

[78] Josephine Marcotty and Maura Lerner, "A Casualty of Cuts," *Minneapolis Star-Tribune*, March 10, 2003.

[79] Barry Massey, "Medicaid Cutbacks Outlined by Agency," Associated Press, September 16, 2003.

[80] Jonathan Martin, "Hospital, Illegal Immigrants Feel Medicaid Cuts," *Seattle Times*, December 11, 2002.

[81] Rebecca Cook, "Prenatal Care for Illegal Immigrants Sparks Budget Debate," Associated Press, May 8, 2003.

[82] Heath Foster, "Many Immigrants Lose Health Coverage," *Seattle Post-Intelligencer*, October 11, 2002.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

will reverse the escalating problem of uncompensated medical services provided to immigrants and illegal aliens – other than adopting a flat denial of treatment, which is deemed too draconian to be considered. However, some measures have been proposed:

Identification of Foreign Users of Publicly Funded Medical Treatment

- The Department of Health and Human Services (HHS) could require that all foreigners who seek publicly funded emergency medical treatment through Medicaid be fingerprinted on equipment compatible with the US VISIT screening equipment. This would be linked by the Department of Homeland Security (DHS) to a program which would seek to determine whether these individuals to identify were legally in the United States and, if so, whether they have sponsors who have filed an affidavit of support for them.
- The DHS could be required to provide information to the HHS on sponsored immigrants, and the HHS would then request reimbursement from the sponsor of unpaid medical expenses of the immigrant.
- Immigration and Customs Enforcement (ICI) personnel (including the Border Patrol), as a matter of practice and policy, could determine the immigration status of all aliens it conducts to medical facilities (or facilitates through a third party, such as an ambulance service). If the alien is in the United States illegally, ICE must arrange for their custody and removal after treatment.

Adopting such a system would develop a reliable database on who is using emergency medical services so that appropriate remedial measures could be designed in the public interest. Congress might enact a law specifying that unpaid medical obligations in the United States were for Legal Immigrants, Establish Guarantees of Medical Bills Payment Prior to Admission

The law provides that prospective immigrants are inadmissible if they are likely to become a public charge.[83] Similarly, those who

[83] INA Section 212(a)(4)(A). "Any alien who, in the opinion of the consular officer at the time of application for a visa, or in the opinion of the Attorney General at the time of application for admission or adjustment of status, is likely at any time to become a public charge is inadmissible. "

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

subsequently become a public charge after gaining permanent residence are deportable.[84] (The public charge provisions do not apply to refugees or asylees, but they do to other immigrants.)

- Require sponsors of immigrants to post a medical surety bond to provide health care insurance for the first five years after admission of the immigrant.
- Require self-sponsoring immigrants, such as professionals or lottery winners, to similarly post a medical surety bond that will provide health care insurance for the first five years after admission for legal residence.
- Deny approval of petitions for employer-sponsored immigrants and temporary foreign workers unless the employer offers a health care plan in which the employer contributes at least half of the costs.
- The federal government should develop a medical visa program for admitting and monitoring foreign visitors temporarily admitted for medical treatment. To receive such a visa, the consent of the hospital where treatment will be received and a cost estimate covering all aspects of the treatment should be required. Hospitals should be required to report to the Department of Homeland Security (DHS) when the visitor arrives for treatment and to inform the DHS when the visitor is discharged.

Enforcement of Laws Against Illegal Immigration

The major and expanding usage of emergency medical care facilities is largely a byproduct of the enormous growth in the illegal alien population, which has entered and/or stayed in violation of the legal immigration provisions. An estimated eleven million aliens are currently residing illegally in the United States, and further hundreds of thousands of aliens may be in the country illegally for part of the year engaged in seasonal work.

The massive influx of illegal immigrants is not inevitable. Most illegal entrants or entry overstayers violate U.S. immigration laws in order to take jobs and improve their economic opportunity. Congress recognized this when it adopted the system of employer sanctions against hiring illegal aliens in 1986. That system was soon proven to have

[84] INA Section 237(a)(5). "Any alien who, within five years after the date of entry, has become a public charge from causes not affirmatively shown to have arisen since entry is deportable. "

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

a major loophole in that employers were not provided the means to verify the authenticity of work-related documents that they were required to accept under the law. Congress acted in 1996 to begin to close that loophole by establishing pilot projects to permit employers to verify Social Security numbers and the work eligibility of foreign-born employees.

The primary verification system, known as the Basic Pilot, is still operating as a voluntary project, and it has been thoroughly evaluated by an outside contractor and found to be operating largely as intended. The program was expanded by Congress in 2003 from a program operating in a handful of states to becoming available nationally. When that system is adopted as a mandatory requirement nationally, it will shut down legal employment opportunities for illegal aliens using fraudulent identification, and it will increase the efficacy of enforcement capabilities against employers who knowingly continue to hire illegal aliens in order to exploit their vulnerability.

- As soon as the DHS has addressed the problem areas in the Basic Pilot verification program identified in the outside evaluation and has developed plans to make the system available nationally, Congress should make participation in the verification program mandatory for all employers whose workers are subject to social security withholding.
- The Social Security Administration should restore the program abandoned in 2003 of sending "no match" letters to all employers of employees whose SSNs are not valid. These letters should be made available to the DHS any time that it reviews the firm's I-9 records for its workers.
- Immigration and Customs Enforcement (ICE) resources should be targeted on employers who knowingly hire illegal aliens, with priority being given to systematic exploitation of illegal aliens, such as in sweatshops. Periodic, random, high-profile "sting" operations should be undertaken by ICE to disrupt the use of day-laborer hiring sites by illegal alien workers and the employers who are breaking the law by hiring them.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Reimburse States and Localities for the Costs of Failures in Federal Immigration Policy

- The federal government, in cooperation with local hospitals and state and local health authorities, should report to Congress annually on the cost of uncompensated medical care due to both legal and illegal immigration.
- The federal government should establish a program to annually reimburse states, communities, and hospitals for the uncompensated costs of medical care to illegal aliens and non-immigrants, based on records of such treatment. A key requirement of that program would be the fingerprinting requirement outlined above. Because immigration is a federal responsibility, and in order to spread the burden equitably, Washington should pick up the tab for providing health care for the people it has failed to prevent from settling illegally.[85]
- States and communities that work against federal efforts to combat illegal immigration, e.g., by accepting foreign consular IDs issued to illegal residents as valid identity cards, or allow illegal aliens to get driver's licenses, or adopt policies of non-cooperation with immigration authorities, should be excluded from the reimbursement program. These localities encourage illegal residence in their jurisdictions, perhaps with a misguided view that illegal aliens benefit the community. To allow them to escape the costs of those policies would be unfair to other communities.
- Congress also should clarify existing federal emergency service laws regarding the termination of a hospital's obligation for continuing care after the provision of emergency treatment to stabilize the patient.

End the Taxpayer Subsidy to Employers of Foreign Temporary Workers

Employers of temporary workers, especially unskilled agricultural workers on H-2A visas, are not required to provide medical coverage for their workers. As a result, those low-wage workers generally are forced to turn to emergency medical facilities, public health programs, or

[85] Bills in the 108th Congress – H. R. 819 in the House and S. 412 in the Senate – would extend a program that ended in 2001 to partially reimburse states for funds expended providing emergency health services to illegal aliens. Funds would go exclusively to the 12 states with the highest number of illegal aliens.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

charitable clinics. This is an unreimbursed burden on the taxpayer and the medical facilities.

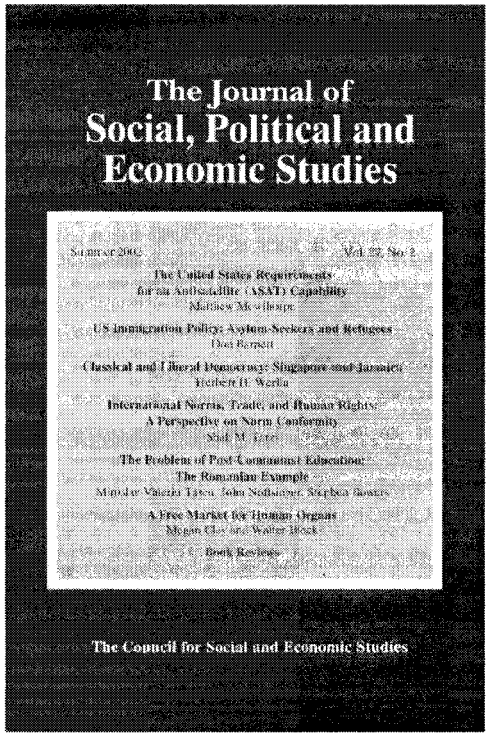
- No further guestworker programs should be adopted without the inclusion of provisions to provide medical coverage for those workers and accompanying family members. The employer, employee, and sending country all benefit from the opportunity to work in the United States, and all three should be required to assume a liability should medical expenses, whether of an emergency nature or not, arise.
- Current law governing temporary workers should be amended to incorporate a similar requirement for all new visas.

Negotiate Medical Repatriation Agreements with Sending Countries

When data collected by public hospitals on uncompensated costs reveal a pattern of abuse by nationals of a specific country, the U.S. Department of State must negotiate a medical repatriation agreement with that country. In the absence of such agreement, travelers from that country should be required to obtain private international medical evacuation insurance as a condition of admission. In addition, a port of entry surcharge fee on citizens of that country could be levied in an amount necessary to defray the outlays by the federal government for medical evacuation of indigent citizens of that country. Steps such as these would serve to ameliorate a problem which will not disappear, however, for so long as America remains unwilling or unable to resist the pressure of both legal and illegal immigration from those countries of the world whose fecundity exceeds their economic viability.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Journal of Social, Political and Economic Studies



JSPES

offers in-depth information on contemporary social, political and economic issues of interest to readers worldwide.

$94.00 per annum for libraries and institutions, $45.00 p.a. for faculty members, students and other private individuals. Reduced three-year subscriptions are available at a cost of $280.00 for libraries. For mailing addresses outside the USA please add $12.00 per annum.
ISSN 0193-5941. Mastercard/Visa accepted.

The Journal of Social, Political and Economic Studies
P.O. Box 34070, N.W.,
Washington, D.C. 20043

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Book Review Article

Race: The Reality of Human Differences
Vincent Sarich and Frank Miele
Westview Press, 2004

A New Perspective on Race

Thomas Jackson
New Century Foundation

Perhaps those who live in the Western world are becoming tired of hearing about race. In the United States, Canada and Western Europe, sociologists, anthropologists, and television commentators have for several decades repeatedly asserted that race is biologically meaningless, and that the physical differences between Danes and Pygmies are insignificant evolutionary accidents. Race, they say, is an artificial concept invented by whites only a few hundred years ago to justify colonization and slavery. Yet legislation is passed based on the existence of races, and the billions who inhabit Asia, Africa and Central and Southern America seldom show any sign of believing that race is not a reality.

Those who seek to deny the biological reality of race maintain that race is nothing more than a cultural invention, and seem to be motivated primarily by a belief that the concept is responsible for "social injustice." However, in *Race: The Reality of Human Differences* authors Vincent Sarich, emeritus professor of anthropology at Berkeley, and Frank Miele, senior editor of *Skeptic* magazine, produce a powerful argument against this myth, claiming that race is indeed a biological reality, and one of considerable evolutionary and political importance at that.

Historical Attitudes

Race takes aim first at the notion that it was 16th and 17th century Europeans who first noticed race and race differences. As Saarich and Miehle point out, humans appear to share with dogs, baboons, wolves, killer whales and virtually all of the higher animals, including birds, an instinctive ability to distinguish members of their own group from

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

outsiders. Three-year old children sort people by race without being taught to. Every human population that ever had contact with aliens seems to have noticed racial differences, and treated those who were different from them with caution. Similarly, they point out, slavery was around long before Europeans began to explore the wide world beyond Europe.

Egyptian tomb paintings clearly differentiate four racial variants amongst the peoples known to them: Egyptians, Asiatic Semites, Caucasians, and sub-Saharan Africans. Nor are these simple depictions of physical characteristics to which the Egyptians were indifferent. The Twelfth Dynasty Pharaoh Sesostris III (c. 1887-1849 BC) regarded blacks as inferior to Egyptians, and erected a stele at the southern boundary of Lower Egypt which still reads: "No negro shall cross this boundary by water or by land, by ship or with his flocks, save for the purpose of trade or to make purchases in some post."

Similarly, Saarich and Miehle note that the Indo-Aryans who invaded India some three thousand or more years ago were a light-skinned people who looked down upon their dark-skinned subjects, pointing out that ancient Vedic literature records how the Aryans "stormed the ancient cities of the hated broad-nosed Dasas, the dark-skinned worshippers of the phallus." These invaders developed a caste system which was one of the most elaborate anti-miscegenation programs ever put into practice.

Arabs early became involved in extensive slaving missions across the Sahara, and quickly noted racial differences. The Baghdad historian Abu-al-Hasan Masu'di (d. 956) offered a detailed and accurate physical description of enslaved Africans, adding that they were given to merriment. The Arab jurist Sa'id al-Andalusi (1029-1070) likewise noted their physical differences, and observed quite distinctive behavioral attributes, pejoratively declaring that black Africans "lack self-control and steadiness of mind and are overcome by fickleness, foolishness and ignorance." He also wrote critically about the Slavs and Bulgars who lived to the north of the Arabs, describing them quite differently: "Their temperaments are frigid, their humors raw, their bellies gross, their color pale, their hair long and lank. "

Among the Arabs, people of any race could be enslaved: White

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

slaves were called *mamluk*, which means "owned." Black slaves were *'abd*, which eventually came to mean any black, slave or free. In *The Arabian Nights*, blacks are almost always shown as slaves or doing menial jobs, and they have prodigious sexual appetites. Greek and Roman art works show racial differences very clearly. Herodotus noted the physical characteristics of blacks, especially their "wooly" hair, and Hippocrates speculated that generations of exposure to the sun had burned them black. The ancients realized that racial characteristics were permanent. Jeremiah, for example, asks rhetorically, "Can the Ethiopian change his skin, or the leopard his spots?" And further afield, the Chinese were also very conscious of racial differences, making fun of Caucasians, whom they thought were very odd-looking and had eyes like dogs (i.e., lacking the Oriental skinfold). Indeed, the Japanese did the same, inventing a series of "barbarian" words to describe them, such as "red-haired barbarians" or "blue-eyed barbarians."

One of the book's most interesting examples of the universal human instinct to characterize people comes from the Kalahari Bushmen, whose yellowish skin color, hooded eyes, and other traits match those of the Orientals. The Bushmen distinguish themselves not only from whites but also from neighboring blacks, and indeed have one word for edible animals and another for inedible animals – which includes all other human groups. They use the term *zhu* or "human" exclusively for themselves. That is, they did until they met Asian anthropologists, whom they immediately called *zhu* because of the characteristics which they shared with Bushmen.

The Age of Exploration did not lead whites to invent new racial categorizations to justify "oppression." Instead, many Europeans for long resisted emerging racial theories that emphasized qualitative differences between the races. A serious debate within the Catholic church about the nature of American Indians concluded with a 1537 decree by Pope Paul III, officially declaring them to be fully human and endowed with souls. Likewise, the monogenesis/polygenesis debates of the 18th and 19th centuries could have offered support for slavery but were rejected. Polygenists argued that the races were so different they could not have evolved from Adam during the 4,000 or so years recorded in the Bible. A theory of separate origins or creations for the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

different races might have justified slavery, but Americans preferred the Biblical account of common creation and descent.

According to Sarich and Miehle, it was the rise of the Franz Boaz school of anthropology that successfully substituted "culture" for biology as the primary force that differentiates human groups. They assert that Boaz was an immigrant with a radical, revolutionary background, who felt estranged from established American traditions and sought to bring these established views into doubt – including, not least, the idea that biological race differences were more than skin deep. Israel Ehrenberg was another outsider to American society who took for himself the aristocratic-sounding English name of Ashley Montagu, and worked to undermine the American image of themselves as a people of European extraction. The authors similarly allege that some of Boaz's most famous disciples were also at odds with American society: Margaret Mead was bisexual and Ruth Benedict was lesbian, and felt a similar antipathy for Western cultural traditions, focusing an attack on race in order to ensure that future generations of Americans would abandon the pride that their parents took in their European origins and European culture. Although for a couple of generations they were eminently successful in propagating their race-is-a-myth argument, advances in medicine and especially in genetic science are rapidly restoring faith in the overriding importance of heredity and its derivative, race.

It is a curious irony that although the Boazians succeeded in propagating the idea that race was nothing more than a cultural invention, American society continued almost unconsciously to take race for granted. As Sarich and Miele point out, no one has any trouble in distinguishing one race from another, and even in court cases, in which anything can be bitterly contested, no one has ever argued that race is an illusion or is meaningless. In fact, despite decades of litigation over race, courts do not even have a definition for race or a standard for determining it. They accept the common sense view that race is evident to everyone.

Furthermore, as scientific knowledge advances, racial origins and even racial admixtures can now be determined by scientific tests. Forensic anthropology can identify race from the skeletal remains of a murder victim, and police laboratories can use DNA samples to

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

determine the race and even the racial mix of a criminal. In Britain, the Forensic Science Service uses DNA for what it calls photofitting, that is to say, they can produce a useful estimate of the appearance of a criminal from just a drop of blood or a piece of skin. Genetic markers can even indicate with a reasonable degree of certainty whether a suspect had red hair.

Race is likewise important in medicine. Because of increasingly well-understood physiological reasons, blacks do not get nearly as much benefit from standard hypertension drugs as do whites, and studies are now underway to develop drugs specifically for their benefit. Eskimos did not respond to early drugs for tuberculosis because, unlike other racial groups, they metabolized the medicine before it could act. Biological reality is beating back ideologues who argue that race has no medical importance.

Sarich and Miele also describe the clear cut racial differences in athletic ability, now surely evident to everyone. They note, for example, that in the World Cross-Country Championships in 1997, there were 275 competitors in the 12 kilometer race, drawn from 60 countries, but for the twelfth consecutive year the race was won by a team from Kenya, with most of the Kenyan runners coming from the Kalenjin tribe. Similarly, black boxers from any country tend to excel.

Three of the nine chapters in *Race* recount the twists and turns along the scientific trail that led to an understanding of when the various racial lineages branched off from each other.

Genetic Variability

In practically every discussion of race, we hear Richard Lewontin's claim that there is greater differentiation within races than between races. This does not mean that Scandinavians are more similar to Chinese than they are to other Scandinavians. Sarich and Miele draw a useful parallel between humans and dogs. Breeds of dogs differ not only in appearance but in temperament and intelligence. Yet, it is difficult to tell Great Dane DNA from Pekinese DNA. The huge phenotypical differences between the breeds are accounted for by tiny genetic differences barely detectable with modern analysis. As with human races, small genetic differences account for very important physical

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

differences.

The authors note that observations about differences in dog breeds are not controversial but observations about humans are. Only after much difficulty did one research team that had published about dogs manage to publish about people. This was a study of behavior of newborns that found interesting racial differences even though the births were in the same hospital from women who received the same pre-natal care. Chinese newborns went to sleep in more or less any position in which they were put down, while whites turned their heads to a more comfortable position. White newborns cried more easily than Chinese and were are harder to console. The most striking difference, however, was in what is called "defensive reaction." This involves putting a cloth over a baby's nose and forcing it to breathe through its mouth. White and black babies immediately turned their heads or tried to push the cloth away, whereas Chinese babies lay quietly breathing through their mouths. Navajo newborns have since been found to behave like Chinese newborns, which is not surprising given their lineage.

Races and Species

Species are commonly defined as separate breeds that are infertile when crossed, and races are regarded as sub-species because they are capable of producing fertile offspring when crossbred. But this is an oversimplified an misleading definition. In nature, many physiologically and genetically different breeds which zoologists define as species would still be biologically capable of producing offspring if cross-bred, but never attempt to mate, and therefore continue to evolve quite differently from each other. In nature, animals that are as different as human races are classified as separate species.

Although the evidence now suggests that human races diverged perhaps as little as 50,000 years ago, their physical differences can be very great. Feral animals that look as different as Arabs and Bantus simply do not mate in a natural environment. Indeed, there are species of gazelle that are so similar they can be distinguished only by experts; they share the same grazing grounds, but do not mix.

Comparisons with monkeys underscore the significance of human

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

races. A series of measurements on skulls yields an index of difference from one population to another. By this measure, human races are as different from each other as are different species of chimpanzee. Sarich and Miele do not fail to note the importance of these findings:

> The amount of variation that took approximately one million years to evolve in chimpanzees took only 50,000 years to evolve in humans. *This much shorter time for the evolution of comparatively larger racial differences must mean that these differences are more (not less) significant, and that adaptation, not chance, is the only mechanism capable of explaining this.* (italics in the original)

They continue:

> The shorter the period of time required to produce a given amount of morphological difference, the more selectively/adaptively/functionally important those differences become.
>
> Human races are very strongly marked morphologically; human races are very young; so much variation developing in so short a period of time implies, indeed almost certainly requires, functionality; there is no good reason to think that behavior should somehow be exempt from this pattern of functional variability.

What this means is that the rapidity with which human groups diverged strongly suggests that divergence was not so much caused by random genetic drift due to isolation but was adaptation to real evolutionary pressure. Populations do not become as different as Eskimos and Watusis by accident; they are different because the differences are significant and helped them survive. Physical differences as striking as these are not likely to arise without equally striking behavioral differences.

Intelligence is, of course, one of the most crucial race differences, and Sarich and Miele are not afraid to take it up. They review the findings of racial differences in brain size, noting that it has a 0.4 correlation with tested intelligence. They point out that individuals can vary in brain size by as much as 400 cc – the size of a chimpanzee brain. There are races that differ in average brain size by 300 cc, and show corresponding differences in average intelligence.

Some have argued that there cannot be racial differences in intelli-

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

gence because it is a crucial aspect of humanity to which all groups would have devoted equal evolutionary effort. But the authors point out that in terms of metabolic cost, brain tissue is very expensive, so brains would have grown only as a result of tradeoffs with maturation time, size of the birth canal, diversion of blood supply away from other organs, and a host of other factors. It would have been astonishing if all these tradeoffs had turned out identically in populations that show so many other differences. Evolution in brain size – and intelligence – has been very rapid, and was possible only because there is so much variation in these traits. There is variation not just between individuals but between different breeding populations – races.

Policy Choices

Authors Sarich and Miele point out that race is not only a valid category for grouping differing populations phylogenetically; it is often a focus of loyalty. They note that people of all races prefer the company of people like themselves. What, then, are we to make of race once it is accepted as a significant biological and social reality?

Given the reality of race differences, they see three possible social policy choices for mankind: meritocracy, continued leveling through race preferences, and separation into ethnostates. Their preference is meritocracy, which favors an end to all legal and administrative consideration of race, with employers and colleges free to make decisions strictly on merit. Presumably they support repeal of all anti-discrimination laws, which would leave businesses free to choose their customers and home-owners their neighbors. This book says nothing about immigration, but a meritocratic approach implies restrictions based (only) on ability.

What about ethnostates? They recognize that ethnostates provide the best sense of community and offer a social fabric in which people are more willing to make sacrifices to support their fellow citizens. They also point out that ethnostates are the only way to maintain real, world-wide diversity. But they also list several objections – that separating out the more from the less able races leaves the latter poor, that a homogenous society is less adaptable to changing conditions, that maintaining homogeneity requires social controls, and that ethnostates are more

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

likely to make war on each other.

It is unfortunate for the less able races if separation leaves them less well off, but one must ask whether it is any less unfortunate for the more able races to be saddled with low-IQ, high crime populations? Also, no race has the right to breed more offspring than it can support without charity from another. Likewise, it would be hard to think of challenges the Japanese or the Icelanders are unable to face because of homogeneity. How would large numbers of Mexicans better prepare them for changing conditions? At the same time, homogeneous societies need *fewer* internal controls than diverse societies because the government need not police the inevitable inter-ethnic conflicts. As for the likelihood of war, diversity within borders causes much more bloodshed than homogeneity. A U.N. study of the years 1989 to 1992 found 82 conflicts that resulted in 1,000 or more deaths. Of this number, no fewer than 79 involved ethnic or religious antagonists, and took place *within* the borders of single nations. Only three were cross-border conflicts.

The authors are remarkable in that they have considered separation as an option at all, much less to have listed its advantages and disadvantages. Most commentators do not even consider it an option, or reject it out of hand. Yet separation is not merely a logically possible reaction to the reality of race; it is the necessary reaction for the members of any race who wish to survive as a distinct people with distinctive life style and culture of their own.

The race-is-a-myth argument is not only wrong but hugely damaging. It promotes the fantasy that no population should resist replacement by another, since it is really being replaced by itself.

This book makes an important contribution to the public's understanding of race in the light of modern science, and the important social policy issues that hinge on this subject. It outlines the relevant science in language easily intelligible to the layman, and presents unfashionable data without flinching.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

THE INDO-EUROPEANS

Professor Jean Haudry

of the University of Lyons, France, surveys our contemporary knowledge about the Indo-Europeans:

Who they were, where they lived, their language, archaeology, appearance, character and mentality. He examines their political institutions, family life and social system, legal heritage and religious beliefs.

Including a useful synopsis of common Indo-European words in various languages, an extensive bibliography and an invaluable of sources.

Softback. 166 pages.
1-878465-28-7

$20.00 – Postage $3.50 (USA) $5.50 (foreign)

Scott-Townsend Publishers
P.O. Box 34070, N.W., Washington, D.C. 20043
socecon@aol.com TEL:(202) 371-2700 FAX:(202) 371-1523

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Book Reviews

Treason:
Liberal Treachery from the Cold War
to the War on Terrorism
Ann Coulter
Crown Forum, 2003

There is a dilemma that bedevils the scholar. Intellectual discourse most often prefers a less-than-strident, sometimes even equivocal, presentation of arguments, precisely because, at least as ideally conceived, this makes possible the nuanced consideration of ideas. It invites discussion by leaving open the possibility that on a number of things "reasonable people can differ." And it encourages a context in which ideas of all kinds can be put forward without having reason to anticipate that the exchange will turn into an *ad hominem* slugfest.

Civility among the proponents of differing ideas is also important because the world is so deeply divided, as at most times in history it has been, and because the divisions portend to become vastly deeper in the decades ahead as the economic displacement caused by globalization and ever-advancing technology polarizes the world.

At the same time, there is much to be said for an honest, straightforward telling of something "as it is." This is what Robert A. Taft had in mind when he said that "tact is dishonesty." A fully honest presentation will often be strident, not because of gratuitous slurs upon an opponent, but because the subject-matter itself is unappealing. In that context, there is merely the finest line between an acceptable stridency and a lack of civility.

In *Treason*, Ann Coulter never withholds a punch. She gives her readers the "red meat" they long for. She plainly charges American "liberals" with hatred for their country and treachery toward it. One is tempted to think of it as a lack of civility. But most of what she says differs only in tone from what scholars speak of more genteelly when they refer to the "long-standing alienation of the intellectual from bourgeois society." She spells out the alienation's implications bluntly, and only on occasion throws in a gratuitous insult that takes her over the

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

line. Her discourse occurs within the realm of the "rough and tumble" of ideas that is often praised. It isn't phrased as the scholar prefers, but it isn't beyond the pale, either, except occasionally.

This is to say, readers with an intellectual bent should not write off what Coulter says because of her style. It is for those who disagree with her to meet her head-on with facts and arguments that negate what she is saying.

Coulter no doubt draws from an extensive file in which she has documented many facets of the American Left's mindset. A hard-hitting presentation of those facets makes up, in effect, the last two-thirds of her book. Those who agree with her will relish being given chapter-and-verse about ideological double-standards, blacklistings of ideas from outside the Left, demagoguery and opportunism, and the like.

An example: it is commonplace today to decry the 1948 "Hollywood Blacklist" against Communist screenwriters as a hateful abuse of people and their right to express themselves. But Coulter, for her part, points out several instances in which blacklisting runs the other way. The *New York Times*, she says, barely mentioned the release in 1995 of the Venona cables (the extremely significant Soviet cables decrypted by the U.S. government starting in the 1940s that, now that they are in the public record, show the extensive penetration by Soviet agents into the American government). And "the eminent historian Ronald Radosh is blacklisted from every university in the nation because he wrote the book definitively proving the guilt of executed spies Julius and Ethel Rosenberg." Those who disagree with Coulter will have much to think about – and, if they are not persuaded, to refute – unless they themselves "blacklist" her book, in effect, by turning a blind eye toward it.

The foremost contribution Coulter makes here is her extended defense of Senator Joseph R. McCarthy in the first third of the book – and especially her doing so unapologetically. In the prevailing wisdom of the past few years, McCarthy has ranked right beneath Hitler, and certainly well above Stalin and Mao, in the Pantheon of evil eminences. To Coulter, this is "liberal hobgoblinism," the product of a "bellicose campaign of lies to blacken McCarthy's name."

A major difference between her defense of McCarthy and most of the other defenses written in the almost half-century since his death lies

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

in the fact that Coulter is a "brawler" herself, just as McCarthy was, so that she has no propensity to sniff snobbishly at his insistence that the fight against Communism was to be taken in deadly earnest. She doesn't fail to acknowledge that McCarthy was guilty of an occasional inaccuracy, but she puts that into perspective: 600,000,000 people had fallen under the sway of Communism during just the five years immediately before he started his campaign against Communists in government, and that fact looms a great deal larger than whether McCarthy goofed occasionally (something that was magnified out of all proportion by "a rabidly anti-McCarthy press").

What we need to realize is that McCarthy made a moral issue out of Communism, and that that ran afoul of two major presences in American life: First, virtually the entire American Left had for many years waxed ecstatic over the Soviet Union, and was profoundly defensive toward that fact. The articulate anti-Communists of the day, including McCarthy, felt it absolutely necessary to be meticulous in differentiating between "Communists" and "liberals," but a reading of *The New Republic* and *The Nation* during the twenties, thirties and first half of the forties shows that the reality didn't greatly justify that differentiation. McCarthy came perilously close to unveiling that extreme vulnerability. Second, the great portion of "moderates" in American society in the mid-twentieth century considered it awfully bad form to take a "harsh" or unyielding view toward the American Left. McCarthy was a standing rebuke to their comfort and complacency.

No doubt it is time to rethink the demonization of Joseph McCarthy, and there is no better place to start than with this book by Ann Coulter.

It is incongruous that Coulter sees McCarthy so clearly and yet, in common with many writers on the American Right today, repeats on a number of occasions the New Left's mythologized version of how Japanese-Americans were treated in the United States during World War II. She takes evident pleasure in pointing out that it was the administration of Franklin Delano Roosevelt that perpetrated so egregious an abuse of civil liberties. The problem with this, of course, is that the myth is itself a gigantic lie, concocted by the very people Coulter herself most detests. This is not the time to examine again the facts of

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

that World War II episode. It is sufficient to refer Ann Coulter and other readers to this reviewer's article "The World War II Relocation of Japanese-Americans" in the Spring 1993 issue of this journal.

This, and everything else Coulter discusses, is a subset of the fact that we live in an age of ideology. Almost every issue cries out for a critical reexamination by honest scholars.

Dwight D. Murphey

Angola: Anatomy of an Oil State
Tony Hodges
Indian University Press, 2004

The author provides a valuable survey of the sad history of Angola from the time it was granted independence from Portugal. As he says, "Angola presents a terribly shocking paradox. One of the best resource endowments in Africa has been associated not with development, but with years of conflict, economic decline and human misery on a massive scale. Few countries present such a stark contrast between economic potential and the state of their populace."

It is an anachronism that many of the world's most valuable mineral resources are located in countries which were virtually untouched by civilization until colonial powers brought them into the modern age, and that in so many cases the wealth that these represent has little benefited the peoples of these countries after they became self-governing. This is the sad case in Angola, where oil has been more of a curse than a blessing. Unable to manage the complexities of efficient self-government, after independence Angola experienced decades of bloody warfare, until one group finally achieved control and applied the riches flowing from the countries rich oil and diamond deposits to the benefits of its own leadership. Author Tony Hodges estimates that virtually all the proceeds ($3.6 billion in 2000-2001) Angola receives from the sale of oil is consumed by the ruling elite, by the armed forces that maintain the ruling elite in power, and in patronage to the key supporters of the nomenclatura. How the pie is actually divided cannot be clearly determined, since the government financial accounts are opaque.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Certainly the mass of the population, and in particular the members of minority tribes, obtain no significant benefit.

Apart from the fortunes that are believed to be hidden in the foreign bank accounts of a few leading individuals, statistical evidence as far as it is available would indicate that 42% of the total household expenditure in Angola is spent by the top 10% of the country's population, while the bottom 20% receive only 4.4%, most of which they earn by traditional peasant farming and other labor.

Once self-supporting in the way of food, but with one of the highest birthrates in the world (7.2 live births per female), the failure of Angola to divert at least a proportion of its vast oil income to the development of agriculture means that it now has to import half its cereal needs. Much of the rural population has in fact been uprooted, and the blight of ill-governed urban expansion, with its breakdown of such social values as were provided by tribal communities, is as much a feature of Angola as of other Sub-Saharan African countries.

We are beginning to hear murmurs of the need to revive a new form of colonialism which will protect the populace of failed states such as Angola from the loot-seekers that control them, and turn the vast profits from their natural resources to good use. But with the continuing rise in tension in so many parts of the globe, and the complaints made by Third World governments against the international organizations that try to help them, we see no likelihood of any such development in the foreseeable future.

The author, who lived and worked in Angola between 1996-98, and returned to the country as Senior Policy Advisor to the United Nations Development Program in 2001-02, has provided us with a reliable and comprehensive account of Angola from the time that it acquired independence to the present. This is supported by an extensive and valuable bibliography.

James Jamieson

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Somalia: Economy without State
Peter D. Little
Indiana University Press. 2003

Peter Little, a professor of anthropology at the University of Kentucky, gathered the data for this study over a period of fifteen years, and had direct experience in Somalia with the Office of Foreign Disaster Assistance of the Agency for International Development. While much of his book is organized on an historical basis, he emphasizes, as the title implies, the ability of a less advanced society to survive even without an effective centralized government. Given the ongoing experience of many African countries, the history of Somalia might even suggest that inefficient and corrupt state governments are more of a hindrance to prosperity than otherwise. However, Somalia's success in this respect is to some extent due to the fact that its age-old reliance on pastoralism and cattle-rearing rather than upon industry has not been too dramatically undermined by political turmoil, and in fact has benefited by increasing demand for meat from the rapidly growing population of neighboring Kenya. Sales to Kenya are facilitated by the fact that northeastern Kenya has also long been populated by Somalis, who can bring in cattle without difficulty over the porous border that separates them from Somalia proper.

While Somalia still lives under the rule of local warlords, the people as a whole are sustained by their traditional role as cattle breeders and herders, and also benefit from the fact that during recent wars Ethiopia, its neighbor to the north, lost its access to the ports of Djibouti and Berbera, and now has to channel much of its foreign trade through Somalia.

Between 1980 and 1991, under the corrupt central government headed by Siad Barre, the value of the Somali SoSho declined from 18 to the US dollar to 3,800 to the dollar, but with the collapse of the government, which had devalued the SoSho by printing money to support its own interests and those of its cronies, a degree of stability returned to the SoSho, despite (or perhaps because of) the absence of any central treasury! Indeed, trade began to flourish *after* the collapse of the state controlled banking system, whose inefficient and cumbersome

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

controls had acted as a brake on commerce.

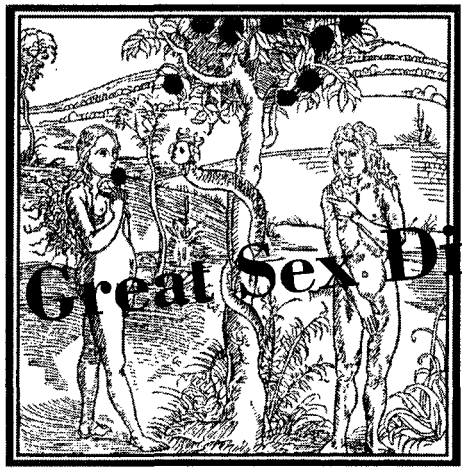
At an estimated 7.25 live births per female, Somalia has the second highest birthrate in the world (second only to Niger), and the number of young people who have not yet even reached child-bearing age is so great that the average age of the Somali population in 2003 was estimated to be as low as 16 years. It is therefore no wonder that Somalis migrate in increasing numbers to the United States and to any prosperous Western country into which they can gain entry. Today, possibly six million Somalis live in Europe and North America, in what the author describes as a Somali diaspora. As the population of Somalia continues to explode, this diaspora will likely continue to increase in size. Emigration will be driven not merely by the high birthrate, but also by economic pressures, as the degradation of the Somali environment continues. The pressure of population increase and over-grazing by cattle is destroying the remaining woodlands and turning formerly fertile grazing land into desert, while along the coast, over-fishing is taking its toll on the coastal fisheries.

Notwithstanding the inevitable doom represented by the depletion of natural resources, the Somalis seem to be managing better without a centralized government – which in any case was doing nothing to protect the environment – than they were with one. In the author's own words: "One sees a lot of evidence worldwide of how impoverished populations can lose confidence in states and their 'modern' apparatus." Modern societies obviously need some form of central government, if only, for example, to provide against environmental degradation. But the point he makes is clear. In truly simple economies that possess some degree of locally-based social organization, a "modern" centralized government that is corrupt and inefficient can be worse than no government at all.

James Jamieson

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

The Great Sex Divide



By Glenn Wilson

Entertainingly written with a broad sense of humor, a leading psychiatrist refutes feminist theories and shows that men and women have reciprocal roles in society, based on identified psychological differences.

Sex and Evolution;
Evidence from Human Biology;
Evidence from Animals and other Cultures;
Can the Differences be Suppressed?;
Sexual Anomalies and Difficulties;
Talent & Achievement;
Aggression and Crime;
Social Forces & the Sex War.

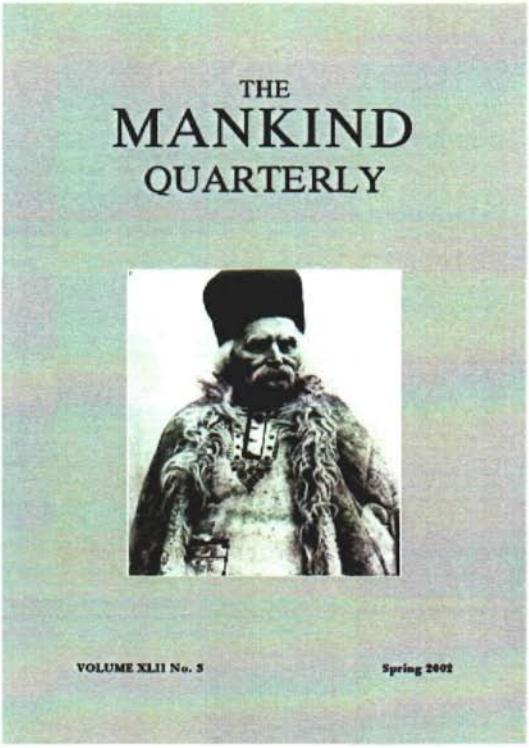
ISBN 1-878465-04-X,
Paperback, 160 pages

$20.00
Postage $3.50 (USA) $4.50 (foreign)
Visa and Mastercard Welcome

Scott-Townsend Publishers
socecon@aol.com
P.O. Box 34070, N.W., Washington, D.C. 20043
TEL:(202) 371-2700 FAX:(202) 371-1523

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

SUBSCRIBE TODAY TO:



The Mankind Quarterly is a forty-four year old refereed, quarterly journal of social and physical anthropology, behavioral genetics, social psychology, and mythology.

Rates per annum: $29.50 for students, $42.50 for individuals, $94.00 for libraries, institutions and other corporate bodies. **Reduced three-year rates**: $115 for individuals, $260.00 for libraries and other corporate bodies. Add $12.00 per annum for shipment to non-U.S. addresses.

Contact us at:

Scott-Townsend Publishers
Box 34070, Washington DC 20043. Fax 202 371-1523.
Phone 202 371-2700. Email socecon@aol.com.

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED

Understanding the United States:
Illusions that Guide Contemporary America

A collection of articles published in
The Journal of Social, Political and Economic Studies

by Dwight D. Murphey

JSPES Monograph No. 30

ISBN 1-930690-59-1, 181 pages, paperback
$25.00 – plus Postage $3.50 (USA) $5.50 (foreign)
Visa and MasterCard Welcome

Council for Social and Economic Studies
P.O. Box 34070, N.W., Washington, D.C. 20043
socccon@aol.com, TEL:(202) 371-2700 FAX:(202) 371-1523

LICENSED TO UNZ.ORG
ELECTRONIC REPRODUCTION PROHIBITED